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# PROCEEDINGS

OF THE

## FIFTY-SECOND CONVOCATION

OF

### THE UNIVERSITY OF THE STATE OF NEW YORK

ALBANY, NEW YORK

OCTOBER 19 and 20, 1916

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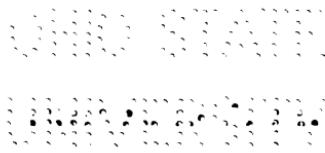


**FIFTY-SECOND UNIVERSITY  
CONVOCATION**



PROCEEDINGS  
OF THE  
FIFTY-SECOND CONVOCATION  
OF  
THE UNIVERSITY OF THE STATE OF  
NEW YORK (State University)

ALBANY, NEW YORK  
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# Fifty-Second University Convocation

## FIRST SESSION

October 19, 1916, 2.30 p.m.

Vice Chancellor Albert Vander Veer M.D. LL.D., presiding

VICE CHANCELLOR VANDER VEER: *Our Guests, Members of the Convocation, Ladies and Gentlemen:* The Fifty-second Convocation of The University of the State of New York will now come to order. The invocation will be offered by the Reverend Dr James S. Kittell.

REV. JAMES S. KITTELL: Let us pray. We thank Thee, O, God, for the righteousness of the life into which Thou art daily leading us; we bless Thee for the communion of great souls who wrought honorably and into whose work we are privileged to enter; we praise Thee for all the gifts of the past, the thoughts of the wise, the labors of the strong, the love of the good and the inspiration of the righteous; we pray that Thou wilt impress upon us as we wait before Thee that the works of our fathers can not be made perfect except through our endeavors. Help us by Thy good spirit that we may not be tempted away from the thing that is highest and noblest by the vain ambitions of life, by the lust of the world and the lust of the flesh and the pride of life. Inspire us with noble thoughts of Thee with the consciousness of our duty and with a loyalty to our daily task, and through the life that now is do Thou teach us and guide us into the noblest and finest character, that we may be workers together with all those great of the past, and workers together with Thee through Jesus Christ, our Lord. Amen.

VICE CHANCELLOR VANDER VEER: It is with keen regret that we have to announce that our beloved Chancellor Sexton is not able to be with us today. He sends us words of cheer and

tomorrow night he will talk with you. We regret exceedingly that owing to illness we are not to have with us that cheerful, bright and brave Regent, Mr Berri, of Brooklyn. From a sick bed he says: "I am fighting the strong fight; I believe I am going to win." We also miss very much one who is now giving his loyal services to his government, who is absent in a foreign land, but we hear from him, wishing us success in our present Convocation and reminding us that he is looking after two or three of our institutions in that country. I refer to Regent Elkus, United States Ambassador to Turkey.

The program of this Convocation is exceedingly interesting, and we are fortunate this afternoon in having with us three of the strongest workers whose minds have been devoted to the subject that is next to be announced, that of "A Basic Program for Civic Training." During the past year the Legislature of this State has delegated to the Board of Regents a very important duty. The military law and the law for physical training in our schools have brought us an additional amount of work, but through the excellent committee we were able to secure for performing that duty, we have had presented to us the rules and regulations pertaining to that work in a very clear and intelligent manner. This afternoon we are to listen to three men who, as authorities respectively on economics, physical training, hygiene and military science command respect and confidence. I have great pleasure in introducing to you first of all one who has been the teacher of so many in my own profession, one who has said so much to us that has been of such great value, one who has taught our boys and many others from the surrounding country and from this State as to inspire us with confidence that he is thoroughly interested in his work, and that what he does may be well relied upon. I have pleasure in introducing Dr Irving Fisher of New Haven, Connecticut.

## THE IMPORTANCE TO HEALTH OF PHYSICAL TRAINING IN THE SCHOOLS

IRVING FISHER P. D.

*Yale University*

It is "an ill wind that bloweth no man to good"; and to one, like myself, who has been heartbroken by the unutterable tragedy across the water, which is not only destroying human life but, what is worse, destroying its virility, there is some comfort in the thought that the very horror of this tragedy creates a strong stimulus toward saving human life and its virility. When the war is really over, and the world sets its face toward reconstruction, I anticipate that we shall see a keener and clearer interest in life and race conservation than ever existed before. The recent "Preliminary Study of Eugenics and War" by Major Leonard Darwin, son of Charles Darwin, is one of the first symptoms of this new interest. The gigantic experiment of alcoholic prohibition in Russia, with its wonderfully good and unexpected results, is an immediate sanitary by-product of the war. The largest by-product thus far in this country seems to me to be the passage of the Welsh and Slater acts in this State, providing for the obligatory physical training of boys over sixteen years of age and the physical training of school children of both sexes over eight years of age.

I am in favor of these acts from many points of view, but that which I would stress at present is the viewpoint of the physical development of the child. This physical development is an integral part of our task of preparing good soldiers. But it is much more. We not only want a real man behind the gun but we want a real man and a real woman in every other relation in life. I have been privileged to see the plans which have been under consideration by the commission charged with administering the two acts mentioned. To say that these plans have filled me with enthusiasm, is to put it very mildly indeed. As a con-

sequence of the fulfilment of these plans, I look forward to a generation of stronger and longer-lived men and women, who will live more happily than their forbears and become in turn better parents.

Above all, I look forward to higher health ideals, out of which all improvement in human vitality must henceforth proceed. These ideals will link health with patriotism. Our boys and girls will, I hope, feel that in developing their manhood and womanhood, they are dedicating themselves to their country and to that broad humanity for which their country stands. There is no more eminently practical advice than that of Emerson to "hitch your wagon to a star." The ancient Greeks did this. For them the training of the youth was a national duty and to such training we may ascribe, in large measure, the valor of their heroes, the strength of their literature and the beauty of their sculpture. We must go back to ancient Greece, if we would go forward. In this age of machinery we are overlooking the man himself.

Some modern nations which have realized this have made great progress in improving their national vitality. And they have done so largely from the impulse to improve their military strength. I might cite Sweden and Switzerland in particular. In Sweden, largely in consequence of a general system of physical training in the schools, human life is longer than in America or than in any other nation and it is gaining vitality at all ages. Mortality statistics in this country show, on the other hand, that after the age of 45 or 50, the vitality of our men and women is less than it used to be and the studies of the Life Extension Institute would seem to indicate that this decadence is due in some measure to the lack of that very training which the execution of the Welsh and Slater acts will supply. When similar laws for physical training shall have been enacted throughout the country, we shall pass into a new era of life conservation.

At present we are, alas, far behind many other countries. The Report on National Vitality of the Roosevelt Conservation

Commission estimates conservatively that over 630,000 lives are unnecessarily lost in this country annually, that at least fifteen years might be added to human life by the application of our present knowledge of hygiene, that there are always unnecessarily ill at least 1,500,000 persons, and that the economic loss alone from these unnecessary illnesses and deaths exceeds \$1,500,000,000 annually.

Since this report was written much has been done toward remedying these evils and the death rate this last year in the registration area was the lowest in our history. And yet there is still enormous room for improvement and the figures of the commission are probably still under the truth in spite of all our progress.

Medical inspection of school children in various cities shows that something like half of them are already, at their early ages, unnecessarily handicapped by bad posture, eyestrain, adenoids, bad dentition, constipation and other forms of neglect. I have little doubt that more rigid examinations, such as those of the Life Extension Institute, would reveal a large majority as partially handicapped.

So low are our national health ideals, that unlike any other great civilized country, we do not even attend to the bookkeeping of human life. Over a third of our population is still outside the registration area; that is, has no record of deaths, worthy of the name. As to births, in no part of the United States are they yet recorded with sufficient accuracy to justify their statistical use by the United States Census Bureau. The great European nations aim to keep careful record of every birth, death and marriage.

Doctor Hurty, health officer of Indiana, used to be fond of telling a story to the effect that a farmer in a western state, when it became necessary to fix the age of one of his daughters, triumphantly succeeded through the recollection that on the same day that she was born a calf was also born on his farm, and of this event he had made a record!

Our national government, although it has an efficient bureau of human health, does as yet far less for human health than it does for the health of hogs and cattle. This fact is also an eloquent commentary on our low health ideals. We value the hogs and cattle in dollars and cents. Yet even on this low plane of commercial valuation, human life, if we only realized it, is well worth saving. William Farr, at one time registrar general of England, estimated the value of human life at various ages from birth to death. His result, translated into American money and raised in proportion to the higher earning power of Americans, shows that the average boy, aged ten, is worth \$2000 and that the average young man aged twenty is worth \$4000. The method by which these figures were calculated is, in principle, simple. Taking any 100,000 boys, aged ten, we know from statistics what it will cost to bring them up, allowing for the fact that certain numbers will die at different ages. We know also how much those who survive to be bread-winners will earn. On the average, the future earnings overbalance the cost of maintenance, by at least \$200,000,000 in present cash value, or an average for the 100,000 boys of \$2000 each. This, of course, is simply an average. Some of the 100,000 will be worth more and some less. Military and physical training in the public schools will gradually enhance the economic value of boys and girls both, and this in three ways: by lengthening their lives and therefore their productive period, by increasing their annual productive power and by decreasing the amount of their disabilities from illness. The annual saving in bread-winning power which effective physical training in the schools may bring about would doubtless run into untold millions, if there were any way to calculate it.

I should be extremely sorry, however, if I were understood to put merely a commercial valuation on human life. As an economist, I have made many such calculations because they seem to appeal to our commercial-minded public and not because they

exhaust life's valuations. A boy who becomes a Beethoven or an Isaac Newton will be worth far more to society than his capitalized capacity to earn money. The great and basic importance of improving vitality consists in the fact that it increases life valuations all along the line. It makes life more worth while for him who lives it, as well as for his family and community. Many fail to see the varied and beautiful tints of human life because they have blunted their capacity to see and feel them, through a lessening in the power of their nervous and mental organization. Hygienists and athletes know the demoralizing effect, especially to immature children, of alcohol and other drugs, including those inhaled in the apparently harmless cigaret. And so bad posture, sedentary life and the general neglect of the body imply great, though unmeasured, losses to the youth, and therefore, later, to the adult. Lax health ideals are primarily responsible and can be corrected by teaching all that science can tell us of how to keep in the pink of condition and best fitted to discharge the responsibilities of citizenship, military and civil.

That our health ideals are low is made most evident by the fact that the word health means so little to most people as compared to what it once meant. Today when I use the word health I almost always find that the person with whom I converse associates with it merely the absence of loathsome diseases or the keeping out of a hospital. That it has any relation to athletics, scarcely occurs to him. That it has any relation to esthetics, to the sense of "the splendor of the human body" as expressed in sculpture or of the human soul as expressed in good literature, occurs to him still less. That it connotes spiritual power never occurs to him at all. And yet the word "health" shows, even in its etymological origin, that it is akin to "holiness." It should not sound strange in our ears, as I fear it does, to say that "we have done the things that we ought not to have done and left undone the things we ought to have done and *there is no health in us.*" It will take years of education to lift up our health ideals to the level of this old meaning of health. The first steps

in this uplift constitute the mission, as I see it, of those who are to administer these new laws for the health training of our budding citizens.

**VICE CHANCELLOR VANDER VEER:** From Benjamin Rush of Philadelphia in the days of the Revolution to the life of the next speaker who is to follow is a long distance, but what a delightful chapter it is for a medical man to read, when we think of his clear description of yellow fever at the time of the great epidemics; when we look over the line of work that was followed out in the Crimean War; when we see the advance that was made to the Franco-Prussian War and to the war between Russia and Japan; when we go back and think of our Civil War. The next speaker will tell us of the very brightest and the most encouraging part of that feature of our profession called preventive medicine, the prevention of disease, the relief of suffering. He has recently passed through a year in the fearful struggle going on among the nations of Europe. He is prepared to say something to us that is encouraging, and I have great pleasure in introducing to you Dr R. Tait McKenzie, of the University of Pennsylvania.

## THE VALUE OF PHYSICAL AND MILITARY TRAINING IN PEACE AND WAR

R. TAIT MCKENZIE M.D. M.P.E.

*University of Pennsylvania*

I have been called up in a theological atmosphere, and it is quite necessary for my speaking to announce a text. I should like to announce a text from the writings of William James, the philosopher, which reads as follows: "Intrepidity, contempt of softness, surrender of private interests, obedience to commands, must remain the rock upon which states are built."

It seems to me that in the passing of this recent law for the introduction of physical training and military training in this State, you have set the pace, set an example in carrying out this text as announced by William James. And I think it is a very

encouraging thing that such a law should be passed. But one must remember that the passing of the law is very much like signing a promissory note; sometimes we pass a law with the same light heart that we put our names to such a document, not always realizing what it is going to involve to carry out; and while you are fortunate in having a splendid commission to carry this out, you need not think that it will be all clear sailing or smooth water ahead. I think that possibly some experiences of the introduction of physical training on a large scale in England recently during this great war might be of interest to you, and as I was closely associated with this, perhaps you will pardon me if I relate some personal experiences.

You know that before the war physical training was not very thoroughly carried out in the schools of England or the United Kingdom. They depended much on haphazard athletics, or voluntary work, which varied greatly in its character in different places, so that there was a large population of young men growing up who had not the advantages of a systematized and continuous physical training. The only trained body of men in England was the standing army, a matter of about one hundred fifty or two hundred thousand men. These men were trained by instructors who had had a four months' course at Aldershot, and a splendid course in gymnastics it was. The instructors were picked men, and this army, when it was called upon suddenly in August 1914, was probably the most highly trained army for its size in the world, and while it lasted during the first terrible onrush through Belgium until it was almost completely annihilated, every man showed the benefit of this fundamental training. But one hundred fifty thousand men did not go very far, and it became necessary then to raise thousands upon thousands of men. From that it became necessary to raise millions, until it came up to two, three, then four millions of men.

When a nation begins to raise numbers like that it can no longer pick the choice men, men who are strong and virile; it must take the rank and file of the community, so that at once we began to see the effects of this general lack of training.

I had the privilege of helping in this work, going over in the spring of 1915, taking the course at Aldershot myself, and afterwards being associated with the inspection of this physical training in the great camps that are scattered throughout England and Scotland and Ireland.

When the war broke out, the gymnastic staff at Aldershot melted at once, as every man had to return to his regiment, so that even the organization as it existed before the war was completely dissolved. Then certain officers and men were brought back for this work and the staff reorganized. It was reorganized from any material they could get as instructors. Shortly after that it was strengthened in another way — men kept coming back who had been wounded, not enough to be completely disabled, men who were unfit for fighting, but who were able to do a certain amount of teaching, so that the staff was enriched by these men of experience. It kept increasing in strength. The course was shortened to one month, and inside of two or three months after the reorganized staff got to work, there were between four hundred and six hundred men being trained as gymnastic instructors every month. Now it runs up to about eight hundred being instructed every month as teachers of physical training. It is difficult to realize what that means in the way of organization. The training camps at that time for Kitchener's army were scattered over the whole of the British Isles, and one would go into a great camp of eighty thousand men in the neighborhood of Southampton, then work up through Kent, up through Shropshire into Wales, where one would see the characteristic little dark Welshman, from Lancashire, among the mill workers and miners, small men usually, on through Cumberland where those splendid men were out drilling and exercising, up to Yorkshire, up through Northumberland, descendants of the men who took part in the border raids, then over the borders of Scotland up through the Lothians until one came to the highlands, which were completely denuded of their best men, and saw these men working all day with only one thought, and that to make themselves fit as quickly as possible.

This army was chosen, as I say, from the rank and file of the nation. It could not be picked. They took any man who was sound, and it was sometimes pathetic to see men who had never been accustomed to doing any kind of exercise at all attempting the gymnastic movements which they were doing for the first time, movements which as a rule they hated. They did not do them well. They were known as Swedish drill, and the men would say, "Why should we do these movements? We are not at war with Sweden." Others would say they thought it a sufficient cause for a declaration of war. But they stuck to it, and in the course of a year and a half these armies have become tremendously efficient.

It has had an effect upon them which I think is of value as illustrating what can be done here. In the first place, one noticed an additional physical alertness. It did not necessarily make them very much stronger, but a man who was slow and listless in those movements became quicker and brighter after a while. A man who was dull and sluggish in his movements became sharp and smart. I think perhaps the most interesting thing about it was the extraordinary mental effect it had on these men. It put them on what might be called a higher mental and physical plane of efficiency, and as a result these men were cleverer men, better individuals and better citizens for this work. Of course it was dramatic in that they had perfectly raw material and turned out the finished article, so to speak, in a very short time. If there had been a complete course of physical training throughout the entire growing period of these men, the task would have been very much easier.

This high level of efficiency, both mental and physical, is just as important for the man during peace as it is during war. It may not save his life in quite such a dramatic way but it does save his life in the best sense of the word, because it makes him able to use his life so much better instead of wasting his energies or not living up to his possibilities.

What is the conclusion that we would draw from this experiment on a very large scale brought about by the necessities of war?

The conclusion that I have drawn or that has been impressed upon me is that if you are going to get the result with the whole people, it is absolutely necessary to have acquired compulsory work that will apply to everyone in the schools. That I believe is the first thing, because if it is voluntary it means that it will touch only a few, the numbers depending upon the way in which it is administered, and its attractiveness. It will not reach those who need it most, and in particular it will not reach the very kind of man we want, which in England is known as the slacker. A slacker is a man who always jumps for the light end of the load if there is something to be lifted. He is a man who always has a splendid excuse, usually a water-tight excuse that one can not get around, but it is always an excuse; never an accomplishment. When this law is put into force this will be discovered, because the authorities will be flooded with excuses that are most difficult or impossible to get around. While there will always be slackers, it is exceedingly important that the number of them be kept as low as possible, because they are demoralizing to the rest of the community, and it is important that they be shown that there is something greater than their own disinclination to do a disagreeable duty. I believe it is necessary for a man or child to do the thing which is perhaps disagreeable, because it is a good thing to do, as determined by those who know; I believe it is necessary for the growth of his character. If we are to have that contempt of softness we must not give way to those things that are difficult and disagreeable. I believe there is too great a tendency in many American homes not to require children to do the thing which is disagreeable but which is often of ultimate value to their character.

Then I believe also that compulsion is necessary in order to bring up the standard of all the people either for peace or for war. After all, the problem in peace and war is very much the same thing. In either case the man with the sound physical body, with the alert mind and with intrepidity and contempt for softness is the man who is going to conquer and who is going to make a success. That is a universal law.

A distinction must be drawn between compulsion and uniformity. It is possible to have a definite requirement of a certain amount of work without always having it absolutely uniform, so that in a general way the training of children from eight to twelve or fourteen, while it must contain a definite amount of the necessary body-building exercises which are universal, might easily give in addition to that, elective work which could in some sort of way indirectly affect the military effectiveness of the student. For example, if in addition to this more purely mechanical body-building work, a certain amount of elective work were given, like scouting, in which boys would learn to take care of themselves, in which they would learn to stand fatigue, in which they would learn the best way to take care of themselves under all circumstances, they have already learned by that means a great deal that is necessary for the soldier in time of war and for the man who has to take care of himself in time of peace.

Compulsion can be combined with a reasonable amount of election throughout school life, election which would include athletic sports, for during this war some of the best men were best on account of their athletic training. The bomb throwers were the cricketers of England. On more than one occasion a regiment has gone over the parapet and gone gaily forward through the fire which was cutting them down, dribbling a football. Those are the sporting conditions which can be learned during youth and which are of the most estimable value for a man in a great crisis such as this war, or in the various crises that come to a man throughout the course of his ordinary life.

I believe also that every citizen before he reaches maturity, say at seventeen or eighteen, should have a definite amount of purely military training, the kind of military training which is necessary to teach him his relations to others in a great body of men, a training which gives him a realization that if he is going to be a perfect man he has to put himself in condition in relation to others as one of a community in such a way that he can

defend his own freedom as well as that of his people from outside aggression.

PRESIDENT FINLEY: There is a gap in the program. I am deputed by the Chancellor to step into the gap and I do so with some hesitation and with more than hesitation, since it is a distinguished general's place I am to fill for the moment. I feel as if I were actually facing an enemy with inadequate preparation.

I have two telegrams from two generals which I will read to excuse my appearance and the gap. The first is from General O'Ryan, who is at McAllen, Texas, on the Mexican border:

"Can not arrange to attend the meeting today of the Military Training Commission. Believe I can attend within the next thirty days. Am writing fully memorandum."

And the next is from General Wood. He has been attacked by two grand divisions of the army of hostile nature. He telegraphs: "On account of storm and auto combination, I can not be present." We had a telephone message this morning saying that the general had started at seven o'clock and would be here, Providence permitting, in time for the meeting. Providence, I regret to say, has not permitted.

But we do have here another member of the Military Training Commission and I ask your permission, Mr Chancellor, to present him. He and I have been working side by side during the greater part of the summer and the early autumn as members of this commission of military name. I think perhaps I ought to say that there is a clear differentiation in the law between physical training and military training. It is distinctly provided that the training in the schools shall be *physical* training. That training has been defined in a very specific way in the law, and the provisions of the law have been translated into a program which has been adopted by the Board of Regents upon the recommendation of the Military Training Commission. It has been defined in fuller detail in a syllabus which has been today approved by the Regents. The tentative syllabus has been in the hands of the

superintendents and principals for the past fortnight. This is a program of physical training for all children of the State above eight years of age in the elementary and secondary schools, public and private. The State is to meet one-half of the expense of that training, to the extent at any rate of contributing one-half of the salary of each special teacher of physical training in the public schools of the State. This, I repeat, is distinctly physical training, though the Military Training Commission has been required by law to make recommendations as to program to the Regents. The Regents have, however, to determine finally what that program shall be. They have, seemingly, full confidence in the Military Training Commission for they have accepted in their entirety its recommendations as to physical training. And they have by resolution this day directed me, who a moment ago was a member of the Military Training Commission, to enforce, as Commissioner of Education, that program in the State.

There is another law which provides that all boys between the ages of sixteen and nineteen who are not lawfully and regularly at work shall undergo such military training as this Military Training Commission shall prescribe. That is entirely outside of the schools. As Commissioner of Education I have nothing whatever to do with that. It is only as a member of the Military Training Commission, in my association with Doctor Fisher, whom I am now to present to you, that I have to do with that matter. I have the pleasure of presenting, with the permission of the Chancellor, Doctor Fisher, who is not to be confounded with Dr Irving Fisher of Connecticut. This is Dr George Fisher. He is nominally of New York, but he is an international person in that he is the international secretary of the Y. M. C. A. for physical training and as such he has supervision of the physical training in the entire world so far as it is identified with the Y. M. C. A.

**GEORGE FISHER:** You will understand, of course, what I have been passing through in having to be related to Mr Hyde [as Commissioner Finley had called himself in this capacity] in

this work on the Military Training Commission. However, I found him really a beneficent Mr Hyde. I really believe, the more we study the legislation that has been enacted, that perhaps it is the most far-reaching that has ever been enacted in this State, and if we carry it out seriously, and so far as the Military Training Commission is concerned we are taking our task seriously, I believe it will mean a beneficent thing. Today our commission reported finally on the physical education program to the Board of Regents, and I am happy to say that they have adopted that program in full. Please note what this program will mean in the schools of the State: a medical inspection of each school child twice a year; two talks weekly, of ten to fifteen minutes each, on health or hygiene, and think what that ought to mean with reference to intelligence regarding health matters about which, as Professor Irving Fisher has said, we have not been very intelligent; two-minute drills at least four times a day preceding the class periods; setting-up drills; and one hour of supervised play each day. It has made many of you in the educational world gasp to think of that large program, but may I say as a physical educator, not as a member of the Military Training Commission, that in America we really play with the subject of physical training. There are few schools that have any kind of a physical training system that applies to the child or that really develops him physically. In order to develop this program in the schools we shall be content the first year with the actual requirement of the law, namely, twenty minutes a day of exercise.

Notice the second thing the Military Training Commission is asked to do, namely, to establish military training camps for boys. I notice that this is purely voluntary. I have been conversing with the young men from Plattsburg and with the boys who attended Plum Island. I have yet to find — note the language — the young man or the boy who has not been enthusiastic over that training, consisting of eight or nine hours daily of hard work over a period of four weeks. That is one of the most encouraging things. I had the privilege of hearing General

Wood day before yesterday in Washington in the conference of college presidents with regard to the training of reserve officers, as required by an act of Congress. General Wood made this remarkable statement: "We are able to do more in two weeks of camp than our land grant colleges have been able to do in a whole year of military training." And immediately some of those presidents said, Why not start our schools one month earlier or have the first month of school under canvas and have these military training camps and get that more efficient period? That is a very valuable suggestion to us of the Military Training Commission of New York State.

We were required under the law to provide not more than three hours of military training for boys sixteen to nineteen years of age inclusive. All the military men with whom we have conversed say that perhaps the minimum requirement in that military training will be close-order drill, the old type of military training. We speak of those exercises that make for endurance, of hiking, map reading, topography, sanitation, first aid. I believe, ladies and gentlemen, if you will be patient with the Military Training Commission that possibly we can make such an interpretation of military training that will mean this basic program of civic training, and who knows but what we may find a new way of training for patriotism or in patriotism? Give to us young men, these boys in the teen age, and we shall give to them a conception of service to the State that will be most beautiful and acceptable. Sometimes I try to think a little of what it might mean. Would it not be a splendid thing if we could get all the boys of this State to hike over long territories requiring considerable endurance up to certain central towns, to meet our leading statesmen, our leading citizens, bring these boys from the rural communities to those centers and have them meet some of the best men of our nation and hear the statements of what these men believe are really patriotic duties and opportunities? Be patient with us; perhaps, as Professor Irving Fisher has so well stated, this by-product of this great European conflict may be made most

wonderful and most beneficent and may mean much in character training and in patriotic and civic training in the lives of our young men and boys. At least we would like to have you know that those are the ideals possessed by the members of your Military Training Commission.

PRESIDENT FINLEY: I think that I ought to say that we have had the great good fortune to secure the services of Dr Thomas A. Storey of New York, formerly of the City College, who has prepared this program for us. We are in great debt to him. I do not know whether he wishes to say a word or not, but I am sure you wish to see the man who is responsible for the syllabus that has gone out to you — Doctor Storey.

THOMAS A. STOREY: I regret very much that I have been called upon to speak this afternoon. I am sure I can add nothing of importance to what has already been said.

I do wish, however, to emphasize the fact that the Military Training Commission in making its recommendations to the Regents has interpreted physical training in terms of health education. This interpretation has been adopted by the Regents and the program of physical training has been built up on that interpretation. This program is now incorporated in the rules and regulations of the Regents.

The most important thing yet to be done is to operate this program successfully. It is one thing to make plans and quite another thing to operate them. After all, the important results, if there are any important results, must come through the use which you, the teachers, and you, the parents of school children, secure through your application of this program. It is from you that we expect the cooperation and the intelligence which will make this opportunity real. You can make it the greatest opportunity that has ever come for the health education of your children.

VICE CHANCELLOR VANDER VEER: In my referring to the great wars that have occurred during my life, I was obliged to dwell somewhat upon physical development and mental strength,

because such wars take the very best of our young men and the strong men, but I would not have you think for a moment that my thoughts are in that direction entirely. I have gained much comfort in the work Doctor Finley is carrying on and in the excellent commission of which he is a member, and to the thoughts that have been given to us in physical training, the training of private life, the training of the youth.

I was hoping that General Wood would be here. The greatest sorrow of the old soldier of the Civil War was the fearful typhoid epidemic of the Spanish-American War, which we have reason to believe was largely due to the ignoring of the medical branch of the department at that time. After the war it was my comfort and my great pleasure to go to Havana and to note the investigations and studies that were being made in regard to yellow fever. There were no cases at that time. I saw the cleaned streets of Havana and other cities in Cuba. I saw their water supply as I had not supposed it was possible for them to have it. I asked who was in command, in addition to that noble physician, Major Reed, and his associates, and I was introduced to the officer in charge — General Wood. General Wood is a graduate in medicine of one of the best institutions in this country. Before entering upon his military career he was a noted physician. He combined that knowledge with his military training, and we have today the knowledge that yellow fever is conquered in Havana, the place where it originated, and that it can not come to us in this country.

## PHYSICAL AND MILITARY TRAINING<sup>1</sup>

LEONARD WOOD

*General, United States Army*

Physical training must go hand in hand with military training. Speaking in general terms, military efficiency requires physical fitness, and unless troops are in good physical condition they can not meet successfully the difficult conditions of modern war.

<sup>1</sup> General Wood was unavoidably absent at Convocation, but had prepared this paper for delivery at that time.

I believe thoroughly in physical training for children and youth, and I believe that it should be carried out systematically and intelligently in both school and college. The system adopted in the schools of Switzerland, where work is commenced by the children at seven years of age, has always impressed me as sound, and one which could be accomplished with advantage in the schools of this country. I believe that the state not only has the right, but is under an obligation to see to it that the physical development of its children receives the most careful supervision.

We want the young citizen with a sound mind and a sound body, and until we develop the sound body, the value of and usefulness of the sound mind are considerably limited. Careful physical development is also of value from the moral standpoint. It should be the purpose of the state so to train and develop its youth, both physically and mentally, that they may enter the more serious duties of life in the best physical condition. This means a more efficient nation from the economic and industrial standpoint. The training and discipline tend to self-control and respect for law and constituted authority, all of which tend to better private and public morals and consequently a better citizenship.

For the boys, physical training after they are twelve years of age should be conducted with a view to possible military service. Here we can copy in a general way the exercises laid down in Switzerland or Australia, which contemplate not only the boy's physical development but his development on lines which will aid in his final military training. With this end in view much of the field training given to the boy scouts should be given to boys during this period; all of it will be useful directly or indirectly in later military training. I do not believe that it is advisable to begin the elementary military training until the boy is fourteen. The work of preceding years should be calesthenic, looking to the correction of physical defects and to turning out a sound and well-coordinated body, and to such field training as is given the young scout. At fourteen, rifle shooting, map reading, simple marching exercises, simple military drills and exercises which tend to develop the marching ability, should be undertaken. The general work

from fourteen to eighteen should in addition to sound systematic physical training cover this general ground. At eighteen the boy should have a good body, well under control, and have received all that preliminary physical training necessary to undertake his military duties. He should also have covered much of his basic military training, so that when he presents himself for final training it will not be necessary to require more than three months of intensive work for the training of the private soldier.

I believe the schools should play a great part in this development of our youth, both girls and boys. The work of the boys should be gradually turned toward their ultimate military training. When the boys leave school if they have not arrived at the age of prescribed military training under the direction of the state (national government) they should be assembled at stated intervals and for fixed periods, as are the boys in Australia, at training centers, for detailed and careful instruction under instructors provided by the state. This work will tend to make a better people physically, mentally and morally. It will serve to impress upon our youth the sense of their obligation to the nation and at the same time prepare them to discharge this obligation effectively and efficiently.

We are doing almost nothing at present either properly to develop our youth physically or to train them to discharge the most sacred duty of a citizen, to defend his country in time of war. Underlying the pacifism talked in the schools is an undercurrent of peace at any price which is debauching the patriotism of our youth. Discussions as to the justice of universal obligation for service indicate that the basic principles on which our democracy rests have not been explained to our youth. I refer to the fact that democracy rests upon the acceptance of the principle that hand in hand with equality of privilege and opportunity goes equality of obligation for service in war as well as in peace. The doubt and hesitation as to one's individual obligation, which is so common in the minds of our youth as is indicated so generally in school debates, shows very clearly a general failure to appreciate citizenship obligation for service on the part of a large proportion of our youth. It is a very dangerous situation and one which can

be largely corrected by sound and frank teaching in school and college.

Shall we prepare for national defense? is another question frequently discussed. An intelligent appreciation of what is going on in the world today should be a definite and clear answer to this question. That there is any doubt as to our obligation shows how far-reaching has been the specious teaching of the professional pacifist. We are all pacifists in the sense that we do not want war. No one is more opposed to it than the soldier who knows what it means, but in our desire to avoid war we should not lose sight, nor let our children lose sight, of the fact that some kinds of peace are eventually more destructive of everything that is worth living for than any war.

Let us tell our boys and girls of their obligations to the nation and prepare them to discharge them. They must discharge them and do so in an efficient manner if the nation is to survive its first war with a first-class power. The groping of the children on these questions of national defense and universal obligation for national service by all who are fit, show how far short our schools have fallen of teaching sound policy and true patriotism. We want more of the manly, virile teaching for our boys, less of emasculating doctrine. Let us teach truth, justice and love of peace with honor. While doing this let us teach sound preparedness and universal obligation for service as the best form of peace insurance.

**REGENT BYRNE:** In no gathering is it more fitting that the memory of Seth Low should be honored than at the Convocation of The University of the State of New York. He was a part of us; for he had been the president of one of the universities of which this University is a whole. By his conduct of that office he did much to make the position of the head of a university that which, in the minds of the people, it now is — a public office, the holder of which is not allowed to confine himself to the education of his students, but is under a duty, when his knowledge and experience can aid in the decision of public questions of moment, to give counsel to the people and those in authority over them.

The other day at a meeting in the city hall in New York, we

were told of the later years of his life; and as I listened I said to myself, "What of the city or of the State or of the Nation did this great citizen think was foreign to him?" For he served the city up to the time of his death; the mayor said that always when he and his associates were considering the making of the contracts for the building of the new underground railroads and the questions growing out of the performance of those contracts, Mr Low, at their request, was always present to advise them. He served the State as a member of the Constitutional Convention and represented it at the fair at San Francisco. The last winter of his life he served the Nation as one of a commission that went to Colorado at the request of the President and made a report for his guidance and the guidance of Congress on the conditions that led to the strikes that had lasted so long in that state.

Until the Convocation of a year ago Mr Low was the only living holder of the degree of LL.D. conferred by The University of the State of New York. At that time the University conferred the degree upon Mr Root; and of his services to the country Mr Low spoke to us then. Mr Root had hoped to be here today, but to his very great regret — and the very great regret of all of us — he is obliged to be absent. We are very fortunate in having with us to speak of Mayor Low a gentleman who is, as he was, a university president, an associate of his in the Constitutional Convention, the Honorable Rush Rhees of the University of Rochester.

## ADDRESS IN MEMORY OF SETH LOW

RUSH RHEES

*President, the University of Rochester*

In what Regent Byrne has just said to you, you have had ample evidence of the propriety of the interruption of the deliberations of this Convocation for a quiet moment of consideration of the memory of one whom his State and Nation had very great cause to honor, and who, as you have been told, was one of the very select company of those upon whom this University has conferred the degree of doctor of laws.

I am conscious, Mr President, of very peculiar honor in being the spokesman of this body to express the reverence and the regard which the people of this State in general, and those devoted to education in particular, have for the memory of Mr Low.

It was not my fortune, as it was the fortune of many of you, to know Mr Low in any intimate way, although I can testify that ever since I came into educational work in this State, he has been most generous in his attention to all requests for information and counsel and most large-hearted and hospitable in his positive friendliness.

Inasmuch as reference has already been made to associations of last summer in the effort that many of our citizens made to serve the State, apparently without successful issue, I may say a word concerning the way in which our very distinguished friend went in and out among that company and did the task which was assigned to him. With the utmost propriety, in the organization of that convention, Mr Low was made the chairman of the committee on cities. I say with the utmost propriety, for there are some of us who can remember the thrill of hope and expectation, like the breath of a fresh wind from the hills, that spread over the land, confined not at all by the boundaries of his State, when the young man in Brooklyn, against the devices and purposes of political organizations, was chosen for the mayor of that city. We can recall, I say, the refreshing feeling which spread throughout the land, not only in the election of Mr Low as mayor of Brooklyn, but in the record of his accomplishment, in the exhibition of his standards, in the proof of his sturdy character and in the accomplishment made possible by his vitality and his intelligence. It seemed that then a new day was dawning for municipal politics in our country, a day when public service would be exalted, and the high principles on which public service could be most perfectly attained would be advocated and sustained.

It is fitting, I said, that Mr Low should have been made the chairman of the committee on cities, for no problem could come before that committee equal in importance and in momentous possibilities to the problem of the city of Greater New York, of

which he was not only a citizen but which he had served as chief executive. In all these relations Mr Low had shown such a discriminating mind, as well as such integrity of character and persistency of purpose, that all who were associated with him in the convention recognized in him the one best fitted to lead the deliberations which would bring before the convention recommendations for proposed modifications of our fundamental law in the direction of greater home rule for municipal corporations.

I remember most vividly his figure as from time to time he rose in his place to argue various questions presented before the convention, with his accustomed quietness, unobtrusive forcefulness of thinking and purity of expression. He had very little of the grace of the orator, but he had what was vastly superior: in the first place, always something to say which was based upon knowledge and experience and illuminated by judgment, and in the second place, ability to command the phrase and the expression which would most clearly and convincingly give utterance to what was in his mind.

Reference has been made by Regent Byrne to the way in which Mr Low has been called upon from time to time, and up to the very end of his life, in the city of his residence to give counsel connected with complicated problems of municipal affairs. His ability to give such counsel was manifested repeatedly in connection with many other questions that were discussed in the Constitutional Convention. Questions of taxation, questions of judiciary, all questions that concerned the organization of the life of the greater city, had his very intelligent consideration.

But inasmuch as I am assuming the right to make a part of my comment grow out of his relation to that convention I am bound to add that even more noteworthy than his devotion to his city and his intelligent understanding of its needs was his devotion to the State, his recognition of the city as part of the State, his very clear recognition of the fact that there are some interests in our life as a people that are state interests and can never be divided and become municipal interests alone — that there are some ques-

tions on which municipal home rule is a misconception and misleading.

I say he was a citizen whom this State had manifold cause to honor and a scholar whom this University with propriety dignified.

Mr Low was the heir to wealth and he devoted the consequent leisure, not as many do, to restless seeking for new forms of diversion, but to a persistent desire to serve the public in whatever way the public service opened to him a possibility.

I need not refer again to his official public service as mayor of Brooklyn and as mayor of New York. It is hardly necessary to say anything further concerning his membership in the Constitutional Convention. I need not do more than mention the fact that he was chosen as one of the few eminent representatives of this country for the delegation sent by the United States to the first peace conference at The Hague. It is, however, very proper that on this occasion reference more specific should be made to his service to the cause of education.

It was the cause of some surprise when Mr Low was appointed the president of Columbia University; no surprise for those who knew his executive ability, not great surprise for those who knew the academic standing he had attained when he was a student, but he had not given himself to the task of teaching, nor had he devoted himself to the pursuits of advanced scholarship. And yet his choice was demonstrated as most unusually wise almost from the beginning of his service as president of Columbia University. It was under his guidance that that institution made the great first step of its modern expansion, moving away from the restricted and hampering conditions of its 49th street home to Morningside Heights, and making plans for the future which required not only wide vision but great courage as they involved the university in temporary debt of very heavy proportions. There on Morningside Heights it was under his guidance that the first group of notable buildings was erected for the home of the university, crowned by his own princely gift of the library in memory of his father. It was under his guidance of its affairs that the university further extended its conception of its task, taking over

the law school on a new academic basis, bringing the medical school into actual connection with the university control, with clear insight of future opportunities adopting the new teachers college as a part of the university — destined as it was to become one of the largest and most important constituents of that great academic body — and welcoming the founding of Barnard College through which his university was to be enabled to give the highest academic opportunities to the women of the city and the country. These were accomplishments of the first importance. That from that time on the institution to which he gave his time and his ability, his money and his devotion, has gone on with marvelous steps in a course of development that has surpassed all expectation, is the finest tribute to the wisdom, the farsightedness and the courage of his administration of the task which he took upon himself. And it is proper that we should remind ourselves again that this was a man of economic leisure, who could turn his hand whither he would and let his steps follow any inclination his mind might devise — but he chose to serve.

Two other lines of public service come to my mind as very characteristic of the man. One was his long continued chairmanship or presidency of the National Civic Federation, an organization the object of which is to secure more perfect understanding, a spirit and temper of more hearty conciliation, in the relation between employers and employees in our broad land. Your memory will serve you for information as to the repeated instances in which that Civic Federation under his guidance, he himself being actively concerned, was called in to counsel in the effort to compound differences and relieve strain and secure harmony in the relations of our citizens one with another in connection with industrial disputes. The other service which seems to me equally characteristic has had eloquent and reverent and grateful recognition within a very few days, in the last issue of a periodical that comes doubtless to the desks of many of you, the Southern Leader, published by the Tuskegee Institute. That issue is devoted to an expression of the grief and the gratitude of the students and the teachers at Tuskegee, gratitude for the service

which Mr Low had rendered that institution as the chairman of its board of directors, and grief at its loss. I say I find this service characteristic: its purpose was identical with the purpose of the National Civic Federation — to bring a spirit of more perfect understanding, of larger good will, of more perfect conciliation to the relations of citizens with one another in this republic, and it was characteristic of him that he would give his power and his thought, his knowledge and his time, to this most critically important and critically difficult aspect of the task of conciliation in our land.

We remember him well, a quiet, undemonstrative man, very positive in character, resourceful in action, of strong friendliness and great hospitality. He loved his God, his life as well as his lips being witness; and he loved his neighbor, as the long years of faithful service in the cause of public welfare and social good will abundantly testify. "The end of that man is peace."

PRESIDENT FINLEY: The next number on the program will seem perhaps an uninteresting one to some of you, but it can not be to us who are teachers in this State. We can know that if we go out of this Convocation there will be someone to remember that we have gone. So long as Mr Charles W. Bardeen is here he will remember and tell us, and when he is gone then we shall have to find someone else to remember him and to remember us; so you will listen patiently for just a few moments while the names are read of those teachers who have gone since our last Convocation.

### NECROLOGY

#### CHARLES W. BARDEEN

Happily there have been no deaths during the year in the membership or the staff of the Board of Regents.

*Hugh Hastings* (1855 — July 27, 1916) was from 1895 to 1907 State Historian, an office now under control of the Regents.

In the normal schools we have to record the death of *Leonard Anderson Blue* (1870 — Aug. 18, 1916), dean of the State College for Teachers, who acted as president in the interim

between the death of Doctor Milne and the inauguration of Doctor Brubacher. He was graduated from the Iowa Agricultural College and from Cornell, subsequently studying at the University of Chicago and getting his Ph.D. degree from the University of Pennsylvania. He was professor in Iowa Wesleyan University and was fellow in Clark University when appointed dean in 1912.

*George Clayton Robertson* (Feb. 8, 1865—March 27, 1916) had taught geometry and English in the Fredonia Normal School since 1914, from which he was graduated in 1886. He was graduated from Cornell in 1892, and had taught in the Mansfield and Plattsburg normal schools.

Of former normal school teachers, *Fox Holden* (Aug. 17, 1849—Dec. 18, 1915) was the first principal of the Plattsburg Normal School, 1889–92. He had previously been principal at Trumansburg and at Addison, the first principal of the Ithaca High School, and superintendent at Olean, 1892–1902. In 1910 he was a member of assembly. *Clara E. Booth* (Jan. 24, 1839—April 28, 1916) was teacher of modern languages in the Cortland Normal School from 1872 to 1910.

Among city and village superintendents in service, *Charles E. Nichols* (1850—April 3, 1916) on the Saturday before his death had completed forty years of service in Mount Vernon, becoming superintendent when the city was incorporated, but resigning in 1909 to become principal of school 10.

*N. Winton Palmer* (1864—July 8, 1916) was school commissioner six years before becoming in 1906 principal at Penn Yan. He was a frequent attendant at educational meetings and was noted in his school work for a high sense of artistic beauty, as well as for method and order. *George J. McAndrew* (1859—August 22, 1916) had been superintendent at Mamaroneck. He was always a faithful teacher, and died from paralysis induced by overwork.

*Isaac W. Dunham*, who died December 30, 1915, was the oldest living graduate of Union College, and after serving in Troy

was superintendent in North Adams, Mass., and Bennington, Vt., retiring in 1886, thirty years ago, on account of failing eyesight. *W. W. Howe* (1862 — May 5, 1916) was for some years superintendent at Whitehall, and author of a system of reading.

Of assistant superintendents, *John H. Haaren* (1855 — Sept. 23, 1916) was a typical product of the New York City school system at its best. He began to substitute in 1880 and rose rapidly till he became associate superintendent. He was one of the founders of the Plattsburg Catholic Summer School, and at one time its vice president.

*Ida C. Bender* (died June 11, 1916) after graduation from the Buffalo Normal School with the Jesse Ketchum gold medal, taught there till 1886 when she took a place in the Central High School, meantime being graduated from the medical department of the University of Buffalo. When Doctor Emerson became superintendent he made her superintendent of grades, a place she held for 22 years. She was often called outside the city to lecture, and was at one time on the staff of Tulane University, New Orleans. For more than twenty years she was president of the Woman Teachers Association. Her textbooks were successful and she gave the royalties to the fund for sick teachers. Best of all she was a noble woman who, in the minds of those who knew her, raised their ideal of teaching and of womanhood.

Among district superintendents, *Myra Lucretia Ingalsbe* (Jan. 3, 1860 — Aug. 22, 1916) began teaching at fifteen, and after seven years of experience entered the Albany Normal School in 1883, occupying the same desk where her father had sat a third of a century before. She was graduated in 1885 and began teaching in Granville. In 1888 she was called to Yonkers, but soon after, on the death of her brother, succeeded him as principal at Middle Granville. In 1894 she was elected school commissioner, and held that office until elected district superintendent. She was reelected a few months ago. She was vice president of the Association of School Commissioners and of the State Teachers Association, and for more than ten years was a member of the grade examinations committee.

Of former school commissioners, we record the deaths of *Joseph Taylor* (1839 — Nov. 21, 1915) of whom it was said that he did more than any other man for the uplift of Sullivan county; *John B. Smallwood* (died Jan. 19, 1916) of Wyoming county; *Bradford S. Wixom* (Aug. 19, 1832 — Jan. 29, 1916) of both Steuben and Yates counties; *Leslie W. Lake* (April 25, 1849 — Feb. 7, 1916) of Erie county 1888-91; *George H. Quay* (1840 — June 17, 1916) of Albany county, who died suddenly while making a speech before the alumni association of the State Teachers College; and *S. Whitford Maxson* (Feb. 19, 1847 — June 29, 1916) who was at one time superintendent of training classes.

Of high school principals in service, *Charles F. Walters* (1872 — Dec. 29, 1915) had been at Piermont since 1914; *J. Taylor Hone* (died Jan. 26, 1916) of Fly Creek dropped dead while explaining to his class a problem in arithmetic; *Alex Graham McAllister* (Oct. 17, 1849 — Sept. 15, 1916) was principal at Warwick 1874-85, and first principal of the Boys High School, Brooklyn, till 1895, when he became principal of School 40 and of the Eastern District High School. He had been at his desk on the day of his death.

The Rev. *John Francis Mullany* (July 19, 1853 — Sept. 24, 1916) was in unusually close relation with his parish school, the Sacred Heart Academy of Syracuse. He was also a founder of the Plattsburg Summer School and of the Catholic Winter School at New Orleans. For a time he edited the St John's Quarterly, and like his brother, Brother Azarias, one of the most distinguished of Catholic teachers in America, wrote much that has value. Personally he was the ideal Catholic priest of story and picture, tall, handsome, benignant in smile and tone, sincere, kindly hospitable.

*Frederick Augustus Cook* (Nov. 4, 1858 — Dec. 16, 1915) was vice principal at Yonkers. He came to the high school in 1886 from Syracuse University, where he was instructor in Latin.

Of former high school principals who had retired, *Samuel Reed Brown* (1859 — Nov. 17, 1915) was a Hamilton gradu-

ate who had served at Altmar, Moira, St Johnsville, East Syracuse, Highland Falls, Warren, Pa., and Clifton Springs, resigning in 1915 on account of failing health. *Albert Bernard Crim* (1853 — Feb. 3, 1916) began teaching at 17 and taught 25 years, for a time keeping select school with Charles F. Wheelock, now Assistant Commissioner for Secondary Education. He was principal at Newport and Middleville. *Howard B. Dabney* (died May 11, 1916) was principal at Otego 1912–15, when he resigned to do graduate work at Harvard. He was a brilliant graduate in 1912 of the State College for Teachers. *Ivan H. Agard* (1881 — Sept. 12, 1916) had taught in Little Valley till compelled by failing health to withdraw.

Of former high school principals who had taken up other lines of teaching, *John A. Howe* (Oct. 1, 1834 — Nov. 10, 1915) had taught in Moriah, Granville, and Poestenkill, when he came to Albany in 1857 as principal of School 6. He was principal here till 1910, when he retired. He was the first principal to display the American flag and the first to open a night school. *Charles J. Baxter* (Nov. 8, 1841 — Dec. 29, 1915) was principal at Chtisville, served in the Civil War, and after teaching in several New Jersey schools, was state superintendent of public schools 1893–1909, being finally legislated out of office. *Edward M. Sincerbaux* (Sept. 6, 1840 — July 16, 1916) served in the Civil War 1862–65, was principal at Boonville 1870–71, and had taught the grammar grades in Moravia 1897–1911.

*Dr Major A. Veeder* (Nov. 2, 1848 — Nov. 16, 1915) was principal at Antwerp 1876–78, then became a physician, and was health officer at Lyons for 25 years. He distinguished himself as an authority in hygiene and meterology, being regarded as an expert in medico-legal cases. He was the editor of many pamphlets and had written much for the public press and professional journals. During the Spanish-American War he was the first to make known the fact that typhoid germs are carried by flies and are nourished in certain soils, and it was upon his advice that the medical department of the government acted in

the successful work it accomplished in preventing the spread of typhoid fever in Cuba and in other southern campaigns of the United States Army. He was the first to prove to the satisfaction of medical authorities that typhoid lives in ice and it was due to his writings that the leading institutions of New York adopted the open-air treatment for tuberculosis.

*Dr Frankfort Duane Babcock* (Dec. 26, 1847 — Sept. 27, 1916) also gave up teaching for medicine, after being principal at Eaton, Morrisville and Afton, locating in 1889 as a physician in Morrisville, where he had served as a member of the board of education, being its president for many years.

The *Rev. William H. Rogers*, who died in March in Los Angeles, Cal., had been principal at Red Creek, Troupsburg, Springville and Portland before he entered the ministry. The *Rev. Frank B. Severance* (July 23, 1869 — March 12, 1916) had been principal at Brownville, Camden, New Hartford and Mexico. The *Rev. Pulaski E. Smith* (1829 — Sept. 18, 1916) was principal of Pulaski academy 1861-63, and afterward for 48 years a Baptist clergyman. *Dr William Wallace Dawley* (Sept. 20, 1850 — Jan. 4, 1916) was vice president of Amsterdam Academy 1876-78. He was pastor emeritus of the First Baptist Church in Syracuse.

*Oliver E. Branch* (July 19, 1847 — June 22, 1916) after graduation from Hamilton was principal at Forestville 1873-75. He studied law, and was state district attorney for New Hampshire 1894-98. *Charles G. McSouth* (Sept. 16, 1847 — Aug. 19, 1916) was for a time principal at Shortsville.

Of New York grammar school principals we note the death of *John T. Nolan* (1854 — Oct. 22, 1915) who began teaching in 1884 and had been principal of School 88 since 1888; *Thomas R. Fretz* (Dec. 23, 1866 — Dec. 3, 1915) of School 51; *Susie Bussing* (1847 — Jan. 15, 1916) of School 1 till her retirement in 1908; *Moses Becker* (1872 — Jan. 15, 1916), an Albany graduate, for 26 years principal of School 119; *Bernard Cronson* (1864 — Feb. 1, 1916) of School 100, Man-

hattan; *Mrs Joanna J. Murphy Hill* (1827 — Feb. 22, 1916) of School 74, primary; *George Walter Edwards* (1846 — April 4, 1916) of School 70, Brooklyn; *John D. Robinson* (died in May) of School 94 till he retired in 1904; *Michael Birmingham* (1842 — June 1, 1916) of School 21, till 1899; *Mary Eliabzeth Hill* (1860 — July 15, 1916) of School 62, Queens; *Elizabeth D. Clark* (1866 — July 23, 1916) of School 37, the Bronx; *John J. Wells* (Sept. 15, 1839 — Sept. 11, 1916) of School 83 till he retired in 1912.

Of grammar school principals in other cities, *Sumner C. Poor* (died Dec. 6, 1915) had served in Auburn since 1911; *Elizabeth Coolidge* (1842 — Dec. 28, 1915) came to Lockport 40 years ago as principal of the high school. Two former principals in Syracuse met violent deaths, *Orrin C. Hinman* (1844 — April 7, 1916) from an automobile accident, and *James E. Conan* (1858 — June 5, 1916) by suicide.

Of librarians, the *Rev. Ezekiel Wilson Mundy*, (June 16, 1833 — June 8, 1916) was a Rochester graduate who served some years in the ministry, but in 1880 became librarian of the Syracuse Public Library, which he developed until it became noted for its practically efficient service, his own delightful personality making it cheerful to all.

*Mary Wright Plummer* (died Sept. 21, 1916) was graduated in 1888 from the first class to study library science in Columbia University. She was chief librarian of Pratt Institute 1896—1904, and director of the library school there 1905—11, when she became principal of the library school of the New York Public Library, resigning last summer on account of ill health. In 1915 she was elected president of the American Library Association, and she wrote several books. She was said to possess “a masculine mind with a feminine personality.”

Of professors in service at Columbia University we record the deaths of *Edward Van Dyke Robinson* (Dec. 20, 1867 — Dec. 10, 1915), economics; and *Frank Dempster Sherman* (May 6, 1860 — Sept. 19, 1916), graphics, and a writer of popular verse.

At the College of the City of New York, of *Fitz Gerald Tisdall* (March 15, 1840—Nov. 11, 1915) ranking professor, having served 55 years; and *Charles George Herberman* (Dec. 8, 1840—Aug. 24, 1916) of Latin, 1869–1915, when he became professor emeritus.

At St Stephens, of *George Bailey Hopson* (Jan. 18, 1838—Aug. 30, 1916) of Latin 1863–1913, and since then professor emeritus, author of "Reminiscences of St Stephens College."

At Hobart, of *John Archer Silver* (1864—Feb. 5, 1916) of history since 1895.

As we were assembling for the Convocation last year *Alice Gertrude McClosky* (died Oct. 19, 1915) gave up her hard struggle for life. She was assistant professor in the College of Agriculture at Cornell, organized and developed the Rural School Leaflet, and brought cheeriness and sunshine to teachers and farmers institutes, where she taught natural history, agriculture and homemaking. *John Edson Sweet* (Oct. 21, 1832—May 8, 1916) was professor of mechanics at Cornell 1873–79, but since 1880 had been president of the Straight Line Engine Works at Syracuse, where he had established and conducted for a time an industrial school for boys. *Clinton DeWitt Smith* (March 7, 1854—Aug. 4, 1916) taught agriculture in Cornell before and after doing similar work in Arkansas, Minnesota, Michigan and Brazil. He dropped dead in the streets of Buffalo. *Charles Smith Prosser* (March 24, 1860—Sept. 12, 1916) was instructor in paleontology at Cornell 1885–88, and professor of geology in Union 1894–99. He held other college professorships and was connected with state government surveys. *Robert Franklin Hoxie* (April 29, 1869—June 22, 1916) was instructor in economics at Cornell 1903–6, but became professor at the University of Chicago.

In professional schools, *Clarence DeGrand Ashley* (July 4, 1851—Jan. 28, 1916) organized and was a professor in the Metropolis Law School 1891–95, when it was consolidated with the New York University Law School, of which he had been dean since 1896.

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*Solomon Schechter* (Dec. 7, 1847 — Nov. 19, 1915) came to America in 1902 to become president of the Jewish Theological Seminary of America. He was sent by the University of Cambridge to Italy, Egypt and Palestine to examine Hebrew literature and made several important discoveries. In the Geniza, or "hiding place," of the Cairo Synagogue he found manuscripts of missing pages of the Hebrew Bible.

*Walter Robert Betteridge* (Dec. 16, 1863 — March 2, 1916) had been professor of Hebrew in the Rochester Theological Seminary since 1891.

Of retired college officers, *Richmond Fisk* (1836 — Jan. 29, 1916) was president of St Lawrence University 1868–72, and opened the law school there, now conducted in Brooklyn.

*LeRoy Clark Cooley* (Oct. 7, 1833 — Sept. 20, 1916) was graduated from the Albany Normal School in 1855, and from Union College in 1858. He was teacher of mathematics in Fairfield Seminary 1858–59, and of sciences in the Albany Normal School 1860–74. He then went to Vassar, and served as professor of physics 20 years, becoming professor emeritus in 1907. His textbooks of physics and chemistry were for years in wide use. His face used to be familiar and welcome at this Convocation.

*Rudolph A. Witthaus* (Aug. 30, 1846 — Dec. 21, 1915) was professor of chemistry in New York University 1876–78 and in Cornell University Medical College 1898–1911, since when he had been professor emeritus. He was known as an author and as an expert in criminal trials.

*Henry Leopold Elsner* (Aug. 15, 1855 — Feb. 18, 1916) had been professor in the Syracuse University Medical College since 1881, where *Dr Henry Baum* (March 3, 1859 — Aug. 5, 1916) was also a professor.

*Edward Leaming* (died May 11) was for many years professor of micro-photography at the College of Physicians and Surgeons.

*Julius Hayden Woodward* (May 31, 1858 — July 2, 1916) was director of instruction in ophthalmology in the Post Graduate Medical School 1913-16.

*John Alva McCorkle* (Feb. 4, 1847 — Aug. 15, 1916) had been connected with the Long Island College Hospital since 1875, and was president 1886-1903.

*Mary H. Everett* (1836 — Sept. 25, 1916) was for five years demonstrator of anatomy at the New York Medical College and Hospital for Women.

*Francis Brown* (Dec. 26, 1849 — Oct. 16, 1916) had been president of Union Theological Seminary since 1908.

All these men and women represented particular lines of service. When we name them we add teacher, superintendent, professor; possibly physician, lawyer, clergyman. . The most notable death of the year is of a man who can not be so classified. He was born to wealth and social position, but no man was ever less a patrician. He had many degrees but I never in my life heard him called doctor. He conducted successfully a large business, yet we do not think of him as a merchant. He gave liberally — a million for a library building — but he was never called a philanthropist. He was twice mayor of Brooklyn and once of Greater New York, but it is only incidentally that he is called ex-mayor. He was representative of this country at The Hague, and might have been minister to more than one foreign capital, but he was not thought of as a diplomat. He was a persuading speaker, as those of us can testify who heard him at the dedication of this building, at the inauguration of President Finley, and last year on that memorable evening when great men told what they thought of Elihu Root, yet he was not distinctly an orator. He was for twelve years president of a university, the foundations of which he so broadened that it is becoming the greatest in the world, but we do not refer to him as ex-president. All these were manifestations of him, but no one of them characterized him. If we had over here marquises and dukes, there is no title that would add to the respect with which

the American citizen pronounces the simple name of his broadest type, *Seth Low*.

REGENT MOORE: It is a pleasure for me to state that the next meeting of the Board of Regents will be held in the city of Elmira, the first time that body has ever met there. It does so because on November 29th there will be inaugurated a new president of the Elmira College for Women, originally known as Elmira Female College, but now generally known as Elmira College. It is the oldest institution for college training for women in the State of New York, antedating all others within the borders of the State, from, I think, about 1855.

I take great pleasure in performing the duty assigned to me today in introducing to this body the new president, first, because I have always had a great admiration for the work performed by Elmira College; and second, because a new era has been established in the history of that institution. It was my pleasure, if I may mention a personal matter, as a boy to see Elmira College when the buildings were first erected. As a Regent of the University, last year it was my duty to investigate and report upon the proposed organization of another college for women, St Joseph's College for Women of the City of Brooklyn, so that I have in my short lifetime seen the first college for women in the State as a boy and the last one while serving the State as a member of the Board of Regents.

We have great admiration for the institution in Elmira, and it has, after a long period of struggle, risen to be an institution of much moment and great value in the community. It was majestic to me when I saw it with youthful eyes. It is majestic now, and it is more majestic since the Rev. Dr John Balcom Shaw has become its president. I can hardly tell you what his influence has been in that institution in our city and in all that section of the country. He has been an inspiration to us. He has been an inspiration to all engaged in civic and in educational work, and when you hear him today, listen to his magnetic voice, and get a little touch of the spirit that inspires him, you will

recognize quite readily the truth that there is nothing stronger than gentleness and nothing more gentle than strength.

I have the honor and pleasure of presenting to this Convocation the Rev. Dr John Balcom Shaw.

**JOHN BALCOM SHAW:** I saw a squib in the newspaper not long ago that purported to be a conversation between a man and his wife and ran something like this:

"Do you remember, dear, the night that I proposed to you?" "Oh, yes," she said, "I never could forget that." "And do you remember, dear, that after I had proposed to you you sat for a whole hour in silence before you gave me your answer?" "No," she confessed; that had entirely slipped her mind. "Well, dear," he said, "I want you to know that that was the happiest hour of my life."

I am inclined to think, sir, that if I should state that this is the happiest hour of my life, you would question my veracity, but I would have you believe that I speak the exact word of truth when I say that I am inexpressibly happy to be present today to receive this recognition at the hands of the honorable Board of Regents of the State of New York. And I venture to construe this recognition not as being simply the outward acknowledgment of my official relations with an institution under your charge, nor yet as the investiture with authority which belongs only to The University of the State of New York; but I should prefer to believe that it is the vital and practical, and may I not say sincere, assurance that from the beginning I shall have behind me not only its authority, but its sympathy and its support, and with me I shall have the cooperation and the prestige and the leadership of what is beyond question the best organized educational system in the United States of America.

I am only a novice at the thing, what might be called a freshman president. The year has been spent — for I am just closing my first year — in learning little and unlearning much. Among the things that have been made clear to me are these: first, that teachers and professors belong unmistakably to the human race

and give as full proof as others of the depravity of the race; second, that the greatest temptation of a college president is to make the dollar mark outrank the recitation mark. I say this is a temptation, but may high heaven ever keep us all from yielding to it; and the third of my conclusions has been that the demand of the public is that a college president shall be a composite embracing every known quality and virtue belonging to the race; that he shall be a kind of academic executive, social and financial paragon. It goes without saying that I have absolutely no hope of fulfilling that demand.

But despite this certain disappointment, and despite the disenchantment that always comes, I think, to a new college president, and despite even the piling up of problems that I never supposed would present themselves, I would like to say to this body that I am immensely in love with my task and I am prepared to give myself to it with all the eagerness and with all the enthusiasm of which I am capable. The goal which I have set before me, and I think it is a worthy goal, is to bring this institution into its full inheritance. It was not only the first college for women to be founded in the State of New York, but it actually has the distinction of having been the first full-course college for women to open in America, its charter granted by the Regents in 1855 giving it the right to confer degrees for courses corresponding to those for which similar degrees were given in the men's colleges of the country. Six years before Vassar opened, we conferred our first degree, and all through the years since, the college has struggled on, always against great odds, and often meeting with dire reverses; but now, I have the utmost joy in saying, friends are falling in behind it and its long-delayed goal seems rapidly coming into sight. With this prospect before me, and the strength of the Board of Regents behind me, I face the future with a large hope and an abounding courage.

VICE CHANCELLOR VANDER VEER: Regent Kellogg will introduce the president of St Lawrence University, Mr Gallup.

**REGENT KELLOGG:** It is a great pleasure for me to introduce President Frank A. Gallup of St Lawrence University, and to assure him for myself, a native of that county, that St Lawrence county and the University bid him a most hearty welcome.

**FRANK A. GALLUP:** I have the attitude of the little girl who was before the teacher when company was present and was asked a question in many different ways, but could not get the right answer, whereat teacher was manifestly perturbed. Finally the little girl said, "Teacher, if you will tell me what you want me to say, I will say it." But, if left to my own way, I shall simply mention what came to my own mind as we slid along the well-wetted rails a few hours ago. There came to my mind, as I looked out, a little hut that has now gone from sight where a cobbler of the olden times served the needs of the individual, the particular needs of individuals, in the community where I was a boy. He was a cheery soul, literally soaked with history and poetry, with body somewhat crippled but with mind clear. He gave his best in his small way, in his faithful way, to the community. No general type for him, no universal last would serve his needs. He scanned the form that came the nearest to the case in hand, then enlarged it, made it smaller, tapered it and ground it, until it had just the form for that particular individual. Then the materials were selected with reference to the particular needs of the wearer of those boots. Throughout the work, he had always in mind the one who was to use his handiwork. And when they were finished and the wearer left the shop, I can see him resting his arms upon his leather apron and gazing affectionately at his departing handiwork, and days and weeks later when the wearer of the boots would come by he would shout, "How are the boots going now?" He was an artist soul, a real artist, and if he had labored elsewhere his name might have been Stradivarius or Chippendale or even Pestalozzi.

The cobbler is dead and his shop is gone, and now the entire community wears machine-made shoes, manufactured at a great distance, out of miles of material, with only general approxima-

tions to the needs of the particular individuals. The artist in the art of shoe-making has disappeared.

There was another activity in his little shop. It was a favorite resort for the boys of the neighborhood, and he entertained and edified us with yards and yards of good poetry, reams upon reams of real history, here and there didactic and here and there entertaining, but I can recall now that he did not deal in wholesale methods. He knew when to slacken and when to tighten the reins. He knew what was one boy's meat was another boy's poison.

Now, why not, why not, I asked myself all the way from Utica to Schenectady, why not? Our practices have brought on certain methods inevitably. Modern conditions have brought on modern methods. We could not avoid them, but our children wear machine-made shoes, machine-made hats, some of them machine-made clothing, some of them are treated as machine products in their education, and their reasoning becomes highly mechanical. The thought in my mind is the superiority of the hand-made goods to the machine article.

Now, why not? Up there where the stars are brightly burning because the air is clear and where the tang of the atmosphere tightens the muscles and clarifies the blood and where the Great Spirit is still worshipped, the Great Spirit that animated our fore-fathers in the founding of this country, whose altars are not broken down and are found in every glade, in every dell, by every stream — up there where no outlandish odors are perceptible in the incense which burns at the morning and the evening oblation, why not up there a school of the old school, where numbers will never receive any consideration, but where the artist looks after the individual now and in the hereafter. Those who are called leaders, those who see visions and dream dreams; in other words, those who are the pioneers in politics and in education and in business are not machine-made products, they are hand-made goods, whether in the schools or at home; and one thing more, to have these leaders, these seers, these original workers, there

must be the inspiration from the Almighty, and why not up there in St Lawrence county?

PRESIDENT FINLEY: I have exercised great self-denial in being silent while the Regents welcomed these young and inexperienced college presidents. I know better than anybody else here, I suppose, how to sympathize with them, and I promise them my sympathy whether they want it or not. I promise them my sympathy even if I can not give them great aid.

But we have no Regent representing China, and so I have asked the Chancellor if I may present a welcome to our representative in that far land, for our walls extend beyond the boundaries of this State. It is my duty every year to sign the diplomas of graduates of a college in Syria, of a college in Brazil, and also of the University of Nanking. Before this Convocation is over we shall be hearing the voice of a teacher once in this State, who happens to be now out on the Pacific slope. He can not be here, but he will be audibly present. But we haven't yet our connections with China. We are not able as yet to hear a voice in China, and so we have to import the voice. We are very fortunate to have here today the Rev. John Elias Williams of the University of Nanking, who has been serving that university so honorably and beneficially, and who has come back to join us at this Convocation.

I have great pleasure in presenting to you the Rev. Mr Williams.

JOHN ELIAS WILLIAMS: It is certainly with very great pleasure that I bring today the greetings of the University of Nanking. The school there appreciates very greatly the privilege it has of this alliance with the Board of Regents of The University of the State of New York, and the standard it has given us in our education in Nanking as an experiment in union enterprise. In 1906 and 1907 it was my experience to be in Tokio trying to carry on work among some fifteen thousand Chinese students who were over there trying to find out how it was that in short order Japan had beaten Russia. I observed

there the mission men had lost out, first, because they had been unable to combine the courses, and second, because they had been unable to command the cooperation of the leading Japanese citizens. In China we have tried to overcome that, so that when government education came in Japan, mission education dropped out by the side relatively. In Nanking we have combined seven different denominations, first carrying on education work in high school and college. They are so thoroughly united that it is much easier to divide them on a dozen other different lines. After high school and college, a medical department and normal training work were added, and within two years the government asked the university to add forestry and agriculture, taking in certain of the students from Pekin and also making a grant from the Pekin government. It sends from the provinces certain students, giving them scholarships, thus achieving the ideal the university had in mind in the first instance, first combining its affairs to carry on education as adequately as possible with its resources, and then further to secure the confidence of the Chinese people themselves.

Some of the outstanding leaders in education in China, men like C. T. Wong, at present called to Pekin to reorganize the national assembly, Don Bow Long, whom Doctor Butler pronounced one of the ablest college presidents he had met, and other men of that standard are on our board of directors. It is becoming an indigenous institution. Still at the present time education in China is chaotic. They are working toward the ideals of a republic and our relation with the Board of Regents and the standard it gives us here and over there has been of immense advantage to us in the development of the work. Our ideal is that the institution shall become indigenous, not only championed by the people but supported by the people, and carrying on the ideals we still maintain.

In this time, in view of the great cataclysm in Europe, we feel the old order of things is breaking up and we have a new order, but we still abide in faith, hope and love and the institution is dedicated to the spirit of service in life.

## **SECOND SESSION**

**October 19, 1916, 8.15 p. m.**

**VICE CHANCELLOR VANDER VEER:** The Convocation will please come to order. The functions of the evening will be conducted by Regent Lord of New York. I have the pleasure of introducing him.

**REGENT LORD:** I feel greatly flattered, members of the Convocation, at the part assigned to me tonight. There is no flattery so subtle as that which is undeserved, that which attributes something to a man that he does not possess. Some men feel flattered, after they have gathered together thirty or forty thousand dollars, to be called millionaires. And so I feel flattered at the part assigned to me tonight, probably because I do not deserve it. We have come together and we are very much pleased at the thought that we are to welcome tonight the new State Historian, and while you welcome him with joy and with gladness let me speak for the people of my own town, the city of Brooklyn, speak in sorrow of the fact that he is to be removed from us, for he has endeared himself to us and we have learned to respect him and to love him. It seems more appropriate that his real welcome here should be given by the President of the University, and I will ask you to listen to President Finley.

**PRESIDENT FINLEY:** We begin tonight a trilogy, a literal trilogy: the written word, the pictured word, the spoken word, and it is very fitting that we should first think of the written word which preserves to us the past. We say the past is secure, but the past is secure only as it is accurately remembered. We have called to us one who is to assist us in remembering accurately the past. You recall, perhaps, that King Ahasuerus, when he was not able to sleep sent for one who kept the records or archives and asked him to read from the Book of the Chronicles.

The king was thus made mindful of something that had happened in the past, which had been forgotten — some man had done a worthy deed and it had not been remembered. We have one tonight who is able to remember the past because he has been trained to remember the past. It seems that he has been years in preparing for this position in varied ways. First of all he has an inheritance of which he may be proud. In the second place he had the very best of training that can be had in this country outside of the State of New York. He is a graduate of Harvard where he won by his unusual record a traveling fellowship, in the enjoyment of which he studied abroad in the School of Archives in Paris, then in Berlin, Vienna, and England, fitting himself on the technical side. He came back to this country and was offered a place in Harvard, but he preferred to enter the service of this State in a secondary school as a teacher of history. He was not long permitted to serve in that capacity, however. He was given an administrative task, and he came to the headship of one of the greatest schools in this State. So he was fitted on every side for this position, technically, administratively and as a teacher. He knows the teachers of this State, the teachers of history particularly, and seems to have every qualification including an agreeable personality. So we consider ourselves most fortunate in having in our University Dr James Sullivan, whom we welcome tonight. In formally inducting him into office I will ask him to take an oath, not the oath to which we are accustomed to subscribe, when we take office, but one very like it. If Doctor Sullivan will rise I will administer to him this oath:

Do you solemnly swear that you will preserve the truth, the whole truth, so far as you are able, and nothing but the truth?

DR JAMES SULLIVAN: I so swear.

PRESIDENT FINLEY: I formally admit you, Doctor Sullivan, to the office of Director of History and Archives of the State of New York.

## THE WRITTEN WORD — THE HISTORIAN INCOGNITO

JAMES SULLIVAN M. A. PH. D.

*State Historian*

After the very elaborate introduction on the part of the Commissioner, I have some trepidation in beginning. It would seem that I had undertaken a very much larger task than I can fulfil; there may have been men who have preserved the truth, the whole truth and nothing but the truth, but I think we should almost place them among the immortals.

One might judge from the title of this address that the speaker would enter into the dry details of the physical preservation of records. Interesting as such a subject might be to himself, he is too considerate of his audience to burden it with such a dusty — we might almost say wormy — subject.

The physical preservation of the written word is only the beginning for historical investigation. The historian may have before him in exact form the only written words extant on a given subject and yet may so twist and distort their meaning as to make the physically preserved written word worse than if it had been destroyed. So it is about that phase of the preservation that I am going to speak briefly this evening — the preservation of the truth of the written word.

Some twenty-five years ago I was walking up the Rue de la Paix one evening and looking in at the brilliant display in the jewelers' windows when my attention was attracted by a man who was doing the same thing. Closer observation made him out unmistakably to be the Prince of Wales, afterwards King Edward VII. In a newspaper a few days later my eye caught an item to the effect that the Prince of Wales liked to throw off his cares by coming to Paris, putting up at the Hotel Bristol in the Place Vendôme, and going about the streets like an ordinary mortal. Officially he was said to be "incognito" for the reason that under such a term he was able to avoid the reception and

attention due to one traveling in state. On his part the cold and impassive dignity suitable for a royal station had been abandoned for an indulgence in the emotions and feelings of his fellow beings.

The preserver of the written word in his official position should stand, like the king or the prince, above the passions and prejudices of man. He should always maintain his cold and impassive calm. He should never travel "incognito," for it is his business to tell the truth, and in order to tell it he must keep far removed from the struggles of party and faction. He should be such a one as Byron describes Gibbon:

The other, deep and slow exhausting thought  
And having wisdom with each studious year,  
In meditation dwelt, with learning wrought.

but he should not allow himself to be characterized by the latter part of the quotation as one who

Shaped his weapon with an edge severe  
Sapping a solemn creed with a solemn sneer.

The historian as the preserver of the written word may consider this view of his function — judicial, cold, remote, unsympathetic, as too ideal, for, being human, he likes to descend from the heights, engage in the fights and squabbles of men, give way to his passions and prejudices, exploit his pet theories, and ride his hobbies. In other words, like our old friend the Prince of Wales, he likes to throw off his cloak of office and travel incognito.

Unfortunately for the truthful preservation of the written word our historians have generally given way to this temptation. The mirror of Clio has more frequently than not reflected only a cracked and distorted image which an unsophisticated world too easily believes is a faithful reflection of the original. Years of painstaking labor on the part of the historian, to use that term as representing the ideal, have been necessary to reconstruct, more from the unconscious monuments than from the written or spoken word, a faithful picture of the past. So this

evening I am going to attempt briefly to give you some examples of the historian incognito — or we might say “in mufti” — a term used by the English army officer when he doffs his uniform and goes into his citizen’s clothing. In giving these examples I am not going to select historians of ancient or medieval times, whose lapses from the strictly ideal historian’s position can be forgiven with the excuse that they did not know any better, but rather am I going to take illustrations from modern writers on historic subjects who have had all the advantages of training in historical criticism.

If we were to search for an ancestor of the historian incognito we should certainly find him in the bard or story-teller who liked to embellish the deeds of his family or race. Homer was such a one and the value of his poems today is not so much in his story of the Trojan war as in the unconscious sources that he has given us in his descriptions of the social and industrial life of his own time, the manner of dress, the household arts and hundreds of other items that he did not intend to pass along as good history to posterity.

It is not our purpose to attack and belabor our old friends Herodotus and Livy. The fanciful and one-sided accounts given by them of the Persian and Carthaginian wars may be charitably attributed perhaps to the fact that they did not have the advantages of our modern training. We may sincerely regret, however, that because these ancients were historians incognito, rather than the ideal historians, we shall never have a fair picture of those great conflicts of Greek and Roman history.

With the modern writers about those two peoples we are more justified in finding serious fault. The attitude of idealization assumed, unconsciously perhaps, by Grote and his succeeding philo-Greek historians has subsisted to the present day, and just recently a book has appeared entitled “Homer and History” by Walter Leaf, in which the author stretches every point to show that the tales of Homer were historically true.

Such activities of the historian incognito have been responsible for the protests of men like Gobineau, Ferrero and Chamber-

lain. The first named, in his history of the Persians, has characterized Greek history as "the most elaborated of the fictions of the most art-productive of peoples," and the second has removed much of the glamor that has surrounded Roman heroes.

In his suggestive book, "The Foundations of the Nineteenth Century," Houston Stewart Chamberlain complains of our present-day philo-Greek historians who, not content with showing that the Greeks were great architects, sculptors and philosophers, must, in their one-sided enthusiasm, represent them also as great generals, which they certainly were not. Elaborating under the title of "Historical Falsehoods" he sarcastically says: "And so we should seek to admire and emulate not Greek history in truth, but Greek historians, not the heroic acts of the Greeks, which are paralleled everywhere — but the artistic celebration of their deeds." Then for us it is amusing to note that this same author, who resents so bitterly the one-sidedness of the philo-Greek historians, turns squarely about and writes a book which has become notorious for its pro-Teutonism and anti-Semitism. That everything which is good in the world has come from the Teutons and everything which is evil from the Semites is not an exaggerated view which the ordinary reader gets from this historian who so cleverly derides the "artistic" creations of the Greek historians and their modern followers. Nevertheless, so true is one of the statements of Mr Chamberlain that at this point it deserves reproduction:

"The principal thing is clearly not what is found in learned books, but what is taught in school, and here I can speak from experience, for I was first in a French lycée, then in an English college, afterwards I received instruction from the teachers of a Swiss private school, and last of all from a learned Prussian. I testify that in these various countries even the best certified history, that of the last three centuries (since the Reformation), is represented in absolutely different ways. While the achievements of our own country are always emphasized, those of others passed over or suppressed, certain things always put in the brightest light, others left in deepest shadow, there is

formed a general picture which in many parts differs only for the subtlest eye from naked lies."

Coming to the middle ages the historian incognito was as busy as in ancient times, and the modern writer on medieval history shows no less disposition than Mr Chamberlain to assume a partisan attitude in matters which it would seem should have long ago passed beyond the play for the prejudices of men. Some volumes of the *Monumenta Germaniae Historiae* are taken up with certain *Libelli de Lite*, or contemporary pamphlets concerning the struggles between the popes and the emperors. Thoroughly as we know that each one of the lives of Henry IV must be weighed before acceptance, and enlightened as we feel ourselves to be, there are not wanting modern historians in Germany who tell the tale of Henry IV and Gregory VII with all the heat and intolerance of those who wrote when the struggle between the two was actually taking place.

In a recent article entitled "Changing Conceptions of History," Professor Munro of Princeton shows how various were the attitudes of the historians of the Crusades. Each century gave them a different treatment. By way of conclusion Mr Munro says, "Any historian is governed partly by the ideas and ideals of his environment and partly by his own point of view." That that is a somewhat charitable statement, we shall see when we analyze the causes underlying the attitude of the historian incognito.

Coming nearer to modern times we find the same influence at work. Queen Mary of England is called "Bloody" and Elizabeth "Good Queen Bess," though an impartial historian, judging them by the standards of our own day, would probably apply the former term to both. Hallam and Hume gave a fairly impartial treatment of the Puritan Rebellion, but Macaulay in writing about it was the first of a series of historians to indulge in those patriotic pyrotechnics so agreeable to the friends of liberty.

Our own Revolution is so taught as to encourage the American schoolboy's patriotism by the derisive application of the words

"Red coats" to the British, and as a lingering memory of our Civil War the shaft of the Merrimac preserved at Richmond has on it a bronze plate telling a very different story of the battle of the Monitor and the Merrimac from that found in our northern school histories. Yet one would think that those characters and events should have been long removed to the realm of impartial and unprejudiced treatment.

At this point we are moved to ask a question and to seek the answer for it: "Why is it that our historians generally travel incognito and that a historic character usually has a very favorable, seldom an impartial, and almost never a hostile biographer?" We might answer immediately by saying that the average historian, like the celibate of the middle ages and like our judges of all time, finds his human feelings too strong for the law which he is supposed to follow. A biographer usually begins his work because of admiration for the subject of his biography and thus from the very start he is prejudiced. Even if inspired by no such regard he is only too prone during his researches to become almost enamored of the man whose biography he is writing and to make of him a hero. This leads to the twisting or coloring of anything adverse and calls for elaborate excuses in which extenuating circumstances are made to justify shady practices. Some remarkable examples of this kind of biography, such as that of Thomas Paine by Moncure Conway, can be cited, and these examples show the extremes to which biographers will go.

In general, however, the motives which prompt the historian incognito are to be found in preconceived ideals, in provincialism, in patriotism, in race or religion, and sometimes in a downright determination to find the key to a situation or to prove a thesis. A few examples of these will bear citing.

In his "Rise of the Dutch Republic" Motley so idealized the people and their deeds that it is with something of a shock that we read the pages of the cold and impassive Blok, who, though a Dutchman, never allows his nationality to get the best of his trained historian's sense. Parkman, in speaking of the

woman with whom Sir William Johnson lived for a time and then married, terms her a "wench." Immediately to the defense of his hero springs Buell and petulantly accuses Parkman of a provincialism of which not only Parkman but Buell himself was guilty. It was scarcely necessary for Parkman to use the word he did, but certainly Buell or any other historian would have a hard task trying to polish the morals of eighteenth century frontier life to suit a nineteenth century standard.

This provincialism of the historian is likely to become almost ludicrous at times. It is true that we of New York are inclined to feel that the importance of our colonial history has not been sufficiently emphasized, but we must acknowledge that we were lacking in men of literary attainment in the times of our early history. When almost every Nantucket sailor on a whaling ship was carefully keeping a diary to hand down to posterity, our earlier settlers were busily engaged in laying the foundation of that commercial supremacy which makes this State and the port of New York without an equal. If therefore our local history has been neglected we have no one but our ancestors to blame. Certainly we got substance while the others got glory — at least of a literary kind.

This subject is further illuminated by a recent effusion from Salem, Massachusetts, a tract entitled "New England History — The Writing Habit of the New England Yankee." The author says: "One marvelous thing about New Englanders is their literary habit of mind — or their talent and fondness for putting a thing down in writing. In no other part of the country is the propensity to put things down in writing so great as here. From the earliest days it began, and future generations have increased the habit." In modern language, they were excellent press agents, and with reference to our own colonial and state history we New Yorkers today are somewhat in the position of the English with regard to Jutland — trying to show that the early press reports were not strictly true. In doing this, however, our local historian should try not to fall into the errors of his Massachusetts brother — to magnify his own and to minimize

another state, sometimes even suppress those things of which he is not particularly proud.

Suppression of historic facts is usually due to local or ancestral pride and to mistaken notions of patriotism. Several years ago an investigator found in London in the records of the Old Bailey — the debtor's prison — a remarkable recurrence of some of those early names in colonial history which every one nowadays is so proud to bear. Without mature consideration and certainly without tact he stated, in an article which he wrote, that some of the people of this country who were looking for their ancestors might find valuable material in the records of the Old Bailey. Only the imagination can picture the wrath and indignation with which such a suggestion was met. A Massachusetts lady who used to take great pride in the deeds of one of her ancestors was asked by the speaker what his early occupation was. She fidgeted in her chair uncomfortably for a time and then in a faltering voice said that he was a barber. Only recently a local historian, not a descendant of Colonel Campbell of Cherry Valley fame, seemed to be shocked by the discovery which he had made that between the times when the good colonel was serving his country, he was at home plying his trade of shoemaker.

Yet there was no good reason for the suppression of any one of these facts. That the larger number of the early settlers in this country were poorly off in this world's goods, in the country from which they came, scarcely needs proof. An interesting report to the States General of Holland in 1629 says:

“ . . . That all who are inclined to do any sort of work here [in Holland] procure enough to eat without any trouble; and are therefore unwilling to go far from home on an uncertainty.”

Just as no one who is well-to-do today seeks Alaska, so in those colonial days the person who had plenty was unlikely to come to the wilds of America. If the social system of those times called for the imprisonment of unfortunate debtors, surely

we should not feel that we approved of the system, by being ashamed of our forebears.

A more serious aspect is given to suppression when the skilled historian practises it. The New England editors of the American History Leaflets brought out "Documents Relating to Secession" and "The Kentucky and Virginia Resolutions" in 1893 and 1894. Was it a sense of shame, merely a coincidence, an administrative necessity or the pure provincialism of the historian incognito which delayed the publication of material relating to the Hartford Convention until 1906? Even then, it was only brought out after continual urging by the publishers.

That pride in race frequently leads the historian astray is shown by three historians of our own day — an Englishman, a Frenchman and an Italian. All were moved more by a feeling of loyalty to their country than by love for the preservation of the truth of the written word when each tried to prove that it was to a particular theorist of his own country and to no other that the origination of certain advanced political theories of the fourteenth century was due.

Religious prejudice has so frequently played a part in the writing of history that it is encouraging to come across historians like Father Ehrle of the Vatican and Professor Smith of Oxford, whose love of historic truth is so great that they allow no religious predilection to influence them to suppress that truth. In his "Church and State in the Middle Ages," Professor Smith metes out his praise and his blame so impartially that upon finishing the book you are puzzled to know to which religious persuasion he himself belongs. So impartial a historian, however, does not always find favor. One of two professors in discussing a book which the other was writing exclaimed: "You will be so fair that both sides instead of one will condemn you."

The commonest kind of historian incognito is he who thinks he has discovered a key to the situation or who has a thesis to prove. Professor Gautier of the University of Paris was accustomed by careful steps to lead his students up to the point where they would exclaim: "Voila la clef," and then he would

leave them thunderstruck by saying: "Now throw it away, it's dangerous." Would that our Buckles, Von Holsts, Chamberlains, Seligmans, economic and social historians in general, could have sat under that old man. They would have learned how dangerous it is to try to explain history by a reliance on the key of geography, of slavery, of Teuton superiority or of economic forces. By developing just such a twist in his otherwise straight mind, James E. Thorold Rogers took the price of wheat and then the wages of the medieval laborer and attempted to prove that the peasants of the time were starving, and yet this was not true. A modern geographer who thought that he had discovered some relation between tracks in the sand and theft tried to show that as a cause for the honesty of a North African tribe, because a thief could be so easily followed by his footprints in the sand. Mr H. C. Murphy set out to prove that Verrazano's letter bearing evidence of the navigator's entrance into New York harbor in 1524 was a forgery, and he did it so well by turning everything in favor of his thesis that he convinced not only himself but many others, even including the historian Bancroft.

Unfortunately, perhaps, the historian incognito has idealized the characters of the founders of this country to such an extent that we have come to regard them as little short of perfection, but just as unfortunately Professor Beard in a recent book gives the impression that he is determined to prove that the men who worked for the ratification of the Constitution did it for venal reasons only. Doctor Beard does not take the pains to show the faith and unselfishness of those who were willing to put their money into such a doubtful financial proposition as the government of this country during and after the Revolution. He emphasizes only the fact that they voted for the Constitution and a stronger government because, forsooth, they had money in its bonds. Similarly a historian of socialistic tendencies, who has recently published a history of the United States, shows pronounced hostility to the railroads and the men of wealth. He lays emphasis on the fact that certain great financiers used public

utilities to their own advantage, but neglects to mention that railroad after railroad had previously gone into the hands of receivers before they could be put on a paying basis.

The historian incognito, the trifler with the written word, thrives because, as Emerson says, we like to be told that which we already believe. In theory at least we might like to have things different. Perhaps history should be represented by Justice instead of by a mild-looking lady like Clio. There on a pedestal, high above the passions and prejudices of men, our ideal historian — our historian royal, would sit writing down the cold, impartial word. A spectacle grand, wonderful, magnificent — this historian. The only trouble is that no one wishes to read what he writes.

In conclusion, the speaker would like to say that in performing the functions of the office in which he is formally installed tonight, he hopes that he will be able to avoid the pitfalls into which the historian incognito has fallen. He also expresses the perhaps shadowy and vain hope that you may sometimes read what he prepares.

**REGENT LORD:** It seems very proper that Doctor Sullivan's most interesting address on how to preserve the spoken word should be followed by another on how to teach it more correctly and quickly. This address is to be delivered by an instructor whose reputation has extended throughout the entire State and whose presence here this evening is a source of great gratification to us. I have the very great pleasure in asking you to listen to Miss Loretto D. Wilkinson, principal of the Nathaniel Hawthorne School of Rochester.

## THE WRITTEN WORD — HOW TO TEACH IT MORE CORRECTLY AND EFFECTIVELY

LORETTA D. WILKINSON

*Principal, Nathaniel Hawthorne School, Rochester*

I am far more at home teaching teachers how to accomplish the following, than telling superintendents that it is possible to

accomplish it, but owing to the time at my disposal it is necessary for me to state results rather than make explanations. For the benefit of those who are not teachers permit me to say that there are almost as many different so-called methods of teaching reading as there are textbooks on the market. Even to refer briefly to them all would consume the entire evening.

Many in this audience tonight may have been taught the A B C's as the first step to reading; others may have been first taught a few simple words; others may have been first taught by sentences; but we find as a general principle that these methods when *used alone* have not resulted in giving the enunciation, pronunciation and thought-grasp hoped for.

It has been abundantly demonstrated that the combination of "sentence method" and "word method" with the definite and logical use of phonetics will utilize the time and effort of the teacher and pupil to the best advantage in teaching reading. The learning of a few words, through their use in simple sentences, will enable the child to begin reading at once. This is always a great delight to children, for it gives them pleasure through a sense of immediate achievement and it excites their interest and desire to learn.

Side by side with this early sight reading should come the gradual learning of certain sounds, single and compound (phonograms). The complete mastery of these phonograms, both by sound and by sight, and their application to words will provide a key by which a child will be able to unlock every difficulty which he will meet in learning new words. In this way, he will master thoroughly the mechanics of reading and can henceforth give his mind wholly to thought getting and vocal expression. Just as long as there are any technical difficulties in a sentence which are not perfectly familiar to the child, so long will his reading be hampered and more or less mechanical. Not until he is so familiar with every word, whether that word is learned by sight or phonetic drill, that the mind recognizes it without effort can it be entirely free to dwell upon the thought alone. For this reason, there should always be abundant drill and

thorough preparation before the reading of any lesson in the book is attempted.

This reading in the book should always be a joyous expression of what the pupil already knows and delights in, of what he has experienced and fully appreciates. Hence the drill upon a word and the actual reading lesson are distinct parts of a program. In order to accomplish the richest results along these specific lines, the teacher should not only use the best method but she should have the best material with which to work.

A child can, indeed, *learn to read* with very meager subject matter, but he will learn little else, and this should certainly not satisfy the earnest, conscientious teacher. The material should be the best. It should appeal to the child in all the varied experiences of his little world and it should also reflect for him the wonderful fancies of the world of imagination in which every child finds the greatest fascinations.

Toward the accomplishment of this we have worked through the following avenues. Our group reading for the first month consists of short, simple sentences based on the interests and activities of the child, giving him the idea of a sentence as expressing his thought and actions. The following words are developed during the first month: *run, jump, hop, skip, come, go, to me, play, I see, can, like, this is, baby, sister, ball, little, sing, will, look, do, you, a* and *the* with a noun.

Blackboard reading (mass work) proves most valuable. Sentences written as commands based on words learned in group reading should be used. The command is written as, *Run*. The child sees, does and then tells what the word says. Besides the sight words the names of children in the class are added, together with phonetic words formed during the phonetic period.

For the first month are the phonetics *m, n, a, r, s, f, l, e, t, c, h, p, i, d, sh, ay, b, o, j, u, ing*, the rule for final e and the blending of these consonants and vowels in words of one syllable. Thirty to forty words a day are used for this purpose.

Devices used in phonetic work are card drills and games, the purpose being to have attention, quick response, interest, power

of observation, accuracy and speed. We allow 15 minutes a day for each group in reading as well as the same amount of time for phonetic drill and mass blackboard reading, and at the end of last year the children had read 27 books grouped as follows: The third group of 10 pupils read 10 books; the second group of 10 pupils read 66 books; the first group of 30 pupils read 21 books. Five books, in addition, were read in mass reading from blackboard.

A class of 27 Italian children covered 13 books and 3 books in mass reading from blackboard.

All grades use books graded for them; for instance, grade 1 B uses primers and first book; grade 1 A uses book 1 from any series, but primers only with children received from outside without phonetic foundation. Toward the end of the term book 2 is used. Grades 2 B and 2 A use book 2 of any series or any book of corresponding degree of understandable material for this age.

All work is sight work. By that I mean there is no preliminary blackboard preparation. The time that is in most places spent in this way to remove the stumbling blocks is spent by us on the interpretation of what has been or is about to be read aloud.

So I am attempting to carry the message of pure, distinct enunciation in reading and thought-getting unhampered, and the rich power of independence on the part of every child that is being taught the subject of reading.

**REGENT LORD:** We are living in a commercial age rather than a literary age. We are thinking of gigantic locomotives, gigantic steamboats, engines of war, aeroplanes and Zeppelins; we are thinking of subways and of elevated railroads; of barge canals that cost one hundred and one million dollars, of Panama canals, of freight trains a mile long; we are thinking of these things until we are thinking of little else. The newspapers are writing about them until they are writing about little else, and I think I can see how our thoughts on the subject are changing, our

newspaper diction, our newspaper language, from a niceity of literary expression to a coarser form of expression. There are printed in New York City one million, five hundred thousand newspapers every morning, two million newspapers every afternoon; and these newspapers are read by nearly ten million persons. Can you imagine a greater responsibility or a greater peril to the written language? The gentleman who is to speak next knows all about these things. He has been an editor and a manager for thirty or forty years to my certain knowledge. He should tell us with great intelligence about the written word in the daily press, and it gives me very great pleasure to ask you to listen to Mr Don Seitz of New York City.

## THE WRITTEN WORD IN THE DAILY PRESS

DON C. SEITZ M.A.

*Manager, the New York World*

I hope you will not be deceived by the educational veneer worn by the gentlemen behind me. Doctor Sullivan, who first addressed you, until a few weeks ago was teaching school around the corner from my house, very much incognito. And it is only about two years ago since Regent Lord quit working across the alley from my office, and it is barely that since Doctor Finley was keeping watch over Israel on Harlem Heights.

I suppose Regent Lord introduced me from New York because he wanted to keep Brooklyn all to himself. As a matter of fact, I live in Brooklyn and have lived there for thirty-three years, except three years I spent in Albany. I have always looked upon that as a combination of dark and light. It was dark during the sessions of the Legislature and light during the over-Sunday period that I spent in the office of the State Librarian with my old friend Berthold Fernow, who then was a sort of custodian of the colonial and revolutionary records and did a great deal of valuable work.

Speaking of the oath Doctor Finley so deftly administered to the new Historian — sort of a marriage oath without the "obey" in it — I am reminded of a frequent jest of Mr Fer-

now's. He had among other precious documents a copy of the muster roll of the Revolutionary soldiers of the State of New York, which had been made by a provost's clerk. This clerk had the habit where a man had dishonorably departed from the service of putting an outline gallows there with an individual hanging from it depicted by thin red lines. Ever and anon some person ambitious to be a Son of the Revolution would come in and look up his ancestors. Mr Fernow was much engrossed in his work, and quite frequently when he would look up to see what had become of his guest, he would find he was gone; and almost invariably he found one of those little red figures opposite the name the gentleman was looking for.

I do not relate these trifles to discourage the Historian but to cheer him up because it seems to me he took a rather solemn view of his responsibility.

I always liked that anecdote of the Oxford don who wrote an essay on Henry VIII and, wishing to be delicate in alluding to certain peculiarities in the career of that gentleman, he remarked that his last days were clouded with domestic infelicities.

Coming down to my subject, or rather coming up to it, and getting away from the dull lines of history, I might remark that the newspaper is, of course, a fleeting, transient thing. It is necessarily so because each day kills its predecessor. I almost might have said each edition kills its forerunner. Events happen not only so frequently in the news chronicle, but the sphere of news gathering has widened so much in the last quarter century that the old difficulty of getting enough to print that caused some editors to carry advertising at unreasonably low rates because they had to get the paper out any way has passed away and the trouble now is to get the stuff into the paper; this has led, as Regent Lord remarked, to a change. In the old days when he and I were younger and he was less beautiful we worked across the street from each other, but not both sides of it as they say, and newspapers were a little different from now.

The Sun under Mr Dana's masterful guidance and Regent

Lord's extraordinary management as managing editor — because I think I can say now that to no man in New York did the newspaper men of the old generation or perhaps near-old generation owe so much as to his kindly interest and training and to his great ability in picking out talent — was a paper of interest, entertainment and instruction. We have got over that, alas. Energy has taken the place of talent and the sudden fact has taken place of news. Mr Dana used to believe in printing anything interesting. The modern editor believes in printing only what is going on and as little of that as possible. He has been misled somewhat into using a great deal of large display type to handle the few words he uses, and at first, after a long training in the other field and a reading of Mr Lord's paper, I had acquired the thought that this was wrong but I have somehow changed my mind. The lady whose very interesting address preceded mine gave the reason. It is necessary to arouse interest. The vast number of your readers are rudimentary in their thought. They do not easily take to a dull, solid column, no matter how incognito it may be. They somehow are repelled by it. I remember that when I was a small boy I hated to read a book without a picture in it, although I was an omnivorous reader. The picture somehow broke the monotony of the page and I think every reader who read in his youth solid work, felt, if he did not do it, like Ike Partington who, when he read the Bible, always tore out a page as soon as he had read it so that he would not lose the place.

In trying, therefore, to catch the largest number of readers, the editor conceived the idea of putting in larger type. The inventor of the large type was the late Foster Coates, a most intelligent and capable newspaper manager. I know that Mr Pulitzer was greatly offended by it when this outburst of big headlines came into the Evening World, and as soon as he could catch his breath he ordered me to gather all the large type in the office, place it in the furnace and melt it up. This I faithfully did, but it would not stay in the furnace. It had shown what people wanted, that they must have some quick way of

learning what was going on. Mind you, we have also shortened up our reading time a great deal. In our office we quarreled with the authorities for about ten years for rapid transit, urging fifteen minutes to Harlem, and when we got fifteen minutes to Harlem we lost five thousand circulation on the upper West Side because nobody had time to read the paper in fifteen minutes. We advocated very strongly the digging of the tunnel from Hoboken to New York, and when the tunnel was opened we lost 8 per cent of our New Jersey circulation because there was no chance to sit in a nice, light ferryboat for thirteen or fourteen minutes and scan the news. They were jerked through the tunnel with very poor light in four minutes, so nobody bought the paper, but we gave the reader larger type, and we were able to pursue him to his lair, so to speak.

The newspaper, of course, must be, in coming times, the refuge of the historian. That he will have more or less difficulty in getting at the facts will be conceded. And yet I am inclined to think that the difficulties of research in the future will be far less great than those of the past because many newspapers are printed — many minds chronicle the events and a little skill and judgment will enable the writer to size things up rather than relying on someone who wrote a chronicle to justify himself or others. This much can be said for the written word in its modern and rapidly printed form, and that is that there is no room for romance. The light, beating upon the page, is too fierce to permit of any form of exaggeration or falsification. Long ago Mr Artemus Ward wrote that Shakspere wrote good plays but would not have succeeded as a Washington correspondent of a metropolitan newspaper because he lacked the necessary fancy and imagination. That might have been true at one time when correspondents wrote long diatribes about "significance." I know when I first came to Albany "significance" was an important factor in the dispatches sent to the newspapers. It has disappeared and given way to fact, and all the busy paper will take and all the crowded forms will hold are the facts as near as they can be ascertained. And sometimes when I look over the

hurried newspaper I am greatly astonished to see how accurate it usually is.

Then you must remember another thing, that we can not see events in their just proportions as they appear before us. Many events fail to be important until long after they have happened. And when some day an eager reporter with an exclusive item in his hand hurries to the office, and the editor knowing it to be exclusive gives it space, you will find in later days when you come to chronicle the event in some cognate form, that this large event has squeezed itself down to a little item and some comparatively small item has grown to large proportions.

In compiling the World Almanac, a modest publication which I have long conducted, it is astonishing to see in the course of a year how much events shift, the month against the day, the year against the first period, to develop the idea of present value. You question at times the accurate judgment of your newspaper; but you can not critically, because the editor, as the western sign says of the saloon pianist, is doing his best — don't shoot him! He can not always judge because there is not time, and yet he tries to be right. He does not print very many things for the sake of finding out whether or not they are true.

I always think of Mr McKelway, whom you will all remember, when we were together on the Brooklyn Eagle, sitting on the managing editor's table one night and talking of nothing particular, when Bishop Laughlin, the head of the Catholic diocese, was announced. Mr McKelway got down from the table and said, "Let's see what the old fellow wants; he has not been in the habit of calling on me," and a little later he told me what he wanted. The bishop had come to protest against the character of an article that had appeared in the Eagle concerning the parochial schools, which some fellow had sent in. Mr McKelway, in trying to explain it, said he did not know anything about it, but had printed it. "Ah," said the bishop, "then you printed this article in order to find out if it was true."

That had been the habit and sometimes it is necessary to print an article in order to find out whether it is true. Very

frequently matters of very great import are revealed by printing something erroneous. I once, as a reporter, discovered a very nefarious transaction in Brooklyn because I printed an indignant paragraph from the fact that the grand jury had failed to bring in a certain indictment. A member of the grand jury came down to the office and was very mad about it. I happened to be there when he came, was the only person around, and he vented his wrath on me; thus I found out that the district attorney was trying to conceal this indictment in order to save the criminal, so it was not such a bad plan after all.

You who educate live in a tranquil atmosphere quite different from ours. Fortunately the day of conflict between newspapers has, I think, disappeared, and they have come to regard themselves as a common force in the community and devoted to the public interests. The day has gone, I think, when airy persiflage used to pass across the alley between the World office and the Sun office, when the distinguished editor of the Sun was always alluded to as Ananias and the great proprietor of the World as Judas. We have got past that. We have got past what you might call partisanship in printing the written word. There is some of it left, but very little. The people want an independent newspaper. They do not want to be bothered with theory peculiar to some one man. The newspaper that ties itself to the fortunes of an individual is pretty sure to lose its own.

And after all there is a vast amount of disinterestedness in the craft. Many men in a newspaper office work with a single-mindedness that I have never seen in any other profession, and I sometimes think that when the crippled Cervantes in his prison cell laughed knight errantry from the world, he brought us something that took its place.

**REGENT LORD:** We are to hear next from a very distinguished professor of Harvard College. Somehow I prefer to think of him as the editor of the Atlantic Monthly, as he was the editor of that publication in its very best days. Nevertheless it will not detract in any way from the pleasure of listening to him as he speaks to us on the lack of respect for the written word

and how university organizations can help toward a better day. I have very great pleasure in introducing Dr Bliss Perry, professor of English in Harvard University.

## THE WRITTEN WORD—HOW UNIVERSITY ORGANIZATIONS CAN HELP TOWARD A BETTER DAY

BLISS PERRY M. A. L. H. D. LL. D.

*Professor of English, Harvard University*

The distinction between the written word and the spoken or pictured word seems temptingly easy. Give a man an idea, and can he not shout it aloud, write it in a letter, draw it in a cartoon? Sometimes, assuredly, he can. Take, for instance, the conception "Boss Tweed is a thief." Mr Tilden says it, Mr Godkin writes it, Mr Nast draws it. These three masters of various modes of expression succeed in conveying approximately the same idea to the ear, the eye, the brain of the people of New York.

Approximately, no doubt; but yet not precisely the same idea to any two persons. Here we touch, at the very outset, upon the fundamental mystery of all these modes of human intercourse, namely, their symbolic character. The earliest known writing does not attempt to convey the words of a spoken language. It makes signs — rough cartoons, we may call them — which denote concrete objects. It can picture "Fat-Man-Who-Steals" long before it can spell and write the abstract word "thief." If we linger over the mystery of these primitive signs for things, and their gradual change into signs for sounds, we shall never have done, even if we do not attempt to penetrate the deeper mystery of how certain speech-sounds came to be signs of emotions, of facts, of ideas. No one knows what ages of human effort are necessary before one two-legged individual can say or write to another "Boss Tweed is a thief," and be sure that he is understood.

Our cardinal fact is that by means of these arbitrary speech-

sounds, however developed, and the no less arbitrary written and printed signs for speech-sounds, however perfected, human thought and feeling is communicable. The behavior of spoken and written words is full of strange matters, but underneath the fascinating question of behavior is this primary function of communicating the experience of one to the body and mind of another, and so on and on, in wider and wider circles, until we reach the end — what end who knows? Many a reader who can not accept Tolstoi's theory of art in its entirety has been profoundly impressed with Tolstoi's belief that the sharable quality of art, its capacity for bringing men into spiritual union with one another, is its most significant feature. Certainly the development of primitive literatures, as far as we can trace them, gives constant evidence of the presence of this communal emotion, this function of art as social consolidation. The bodily and mental excitement of the exceptional "creative" individual soon affects the surrounding crowd, as may be seen in the chorus of a sailor's chanty or of a cow-boy ballad. The infection of the crowd instantly reacts upon the individual. All primitive, communal literature, like the Hebrew lyric, the Scotch ballad, bears this mark of the body. "My heart and my flesh cry out for the living God": that is a test of genuineness and greatness. The "body-and-mind" experiences of an individual or a group thus communicated, perpetuate themselves. A few of them get transferred to clay cylinders or papyrus or stone or bronze; and thus the visual and tactile imagination of one man, of one tribe, become, through the mediation of written speech, a part of the spiritual possessions, the "body-and-mind" reactions of civilizations yet unborn.

Now this process continues without cessation. The latest Imagist poet is in this respect, if in no other, like King David or Sappho. He transfers his mental images — which are often, it is true, so purely retinal as scarcely to deserve the name of mental — into written signs for sounds. He thus exposes his body to the world, or to that limited portion of the world which reads his

verses. The art of printing gives him a chance, indeed a far better chance than David or Sappho ever had, to communicate his image of life to his contemporaries. Imperfect transmission is to be expected: errors in perceiving, failure in recording, these reports of the senses. A short-circuited poet is as familiar a phenomenon as a short-circuited preacher. But liability to error does not inhibit the glorious possibility of the individual's getting the attention of his generation, and perhaps of all generations. I once listened to an interesting supper-table debate between Mommsen the historian, Ernst Curtius the archeologist, and the librarian of the University of Berlin, upon the credibility of human testimony. The librarian concluded by asserting: "I would rather trust an inscription upon stone than a man." But, one may humbly ask, who carved that stone? And did the librarian ever happen to read any inscriptions on tombstones?

In spite of the lurking likelihood to error, written speech thus strives to make permanent its record of feeling and thought. "Go, stranger, and tell the Spartans that we died here." Immense is the pathos of this human endeavor to eternalize the transient. The wonder is that so much is remembered: the Law on the tables of stone, the fragments of Sappho's passion, the story of a few imperishable deeds. The written word does, in a fashion, succeed in its undertaking. Even when languages and races pass, the written words may survive, if only for the theme of scholars' quarrels about Etruscan inscriptions, Runic crosses, Eliot's Indian Bible, George Meredith's "Shaving of Shagpat." What rich salvage the archeologists and philologists find in the human wreck!

Yet after all this is admitted, there is a radical impermanence arising from the very nature of language. It is in a perpetual flux of change. It reflects the "undulating and diverse" quality of all human experience. However unambiguous the written word may seem, it is only a symbol of some body-and-mind reaction. These reactions are never identical in two persons, or even in the same person during successive phases of his experience. We agree tacitly that words shall have a sufficiently definite

meaning to serve as the medium of human intercourse. They do. We can not be forever weighing and counting and criticizing these soiled and worn bits of currency. We pass them over the counter, rejoicing now and then in a freshly minted piece or sighing over a tattered nag of phrase worn out in service. How rarely does a word give an exact and "quiet picture" of the thing as it is! "Circular saw" denotes much the same object to all those who have visual or tactile memories. The word "sunset" connotes as many visual images and complexes of emotion as there are people in the world. These are perhaps extreme examples; and yet precisely what do we mean by "Darwinism," "consent of the governed," "back to Nature," "liberty, fraternity, equality," "Unitarianism," "Americanism"? Translations of the Bible, the words and phrases of the historic creeds, illustrate this same impossibility of fixing in written words the "body-and-mind" reactions of successive generations. St Paul is thought to have had a clear head, but we can not tell just what he meant by the words "resurrection of the body." It is not strange that artists in bronze and marble think their work done when it is finished; but the artist in words is a gambler, who never knows how long his coin will pass.

Of one thing we may be sure. When the written word is colored by that image-making quality which transforms mere language into literature, it does record human progress. Though it arises itself out of the turbulence of the senses, it sets up a mark above the senses' ebb and flow. Like a terminal moraine, it indicates the former presence of great phenomena of the temporal and spiritual worlds. Single words surviving from Greek philosophy, Roman law, medieval philosophy, betray what were once the preoccupations of human society.

And it is not merely the epoch-making general movements that are thus recorded. The written word perpetuates, externalizes — it may be eternalizes — the exceptional experience of those individuals who have thought deeper and soared in their imaginations higher than the crowd. Their intuitions, once fitly expressed, become henceforth the potential experience of all men. We dis-

cover at last what Plato and Shakspere meant, and their words begin to vibrate in us for the first time. Thus the world slowly overtakes, in thought and passion, the experience of the solitary and pioneering individual. When Jefferson catches his vision of Democracy, or Tolstoi perceives that the world of men is one, their words of annunciation are as truly acts as the voyage of Columbus or the signing of the Emancipation Proclamation. What is written by such men stands. Humanity measures its own past progress by it, and by it forecasts the future.

If the written word thus demonstrates the intellectual and spiritual status of races and periods, it is obvious that it is one key to an understanding of civilization. We can not really know Mexico, Italy, France, Russia — to say nothing of Greece and Rome — without knowing something of their speech. Now it is true that mere capacity for learning foreign languages — a capacity in which Americans are weaker than any civilized people except the British — takes one not very far. You may remember Bismarck's cynical advice to the proud father of a boy who spoke several languages. "What shall I make of my linguistically gifted son?" asked the father. "A head waiter," said Bismarck, who was not without linguistic talent himself. I know from personal experience that in the universities of Bismarck's Germany there was an amazing knowledge of the philology of English words, an amazing acquaintance with the external facts of English history, coupled, as I now look back upon it, with a profound ignorance of the English character. These learned Germans did not know England, though they thought they knew her better than she knew herself.

I am not claiming that it is easy to understand the real springs of national life. I do not think that the Americans of the United States understand one another yet, although they all talk "American." Certainly they know little and care little about the Latin-American nations to the south of us, and the masses of our population are as yet unconvinced that our weal and woe will be identical, in the long run, with the weal and woe of Europe. True "international-mindedness" comes slow and hard. Yet

it is the only known correction of nationalistic self-justification, self-glorification. That is why I am pleading for a better knowledge of the written words of Europe, as one way of discovering the mind of Europe. What we perpetually need is a sense of the slowly evolved universal standards of public and private conduct. These things can not be settled in a corner, and certainly not in any one corner of the United States. The verdict of mankind is rendered by an immense jury of thinking men and women, never yet discharged, settling and resettling, by eternal standards but in the light of advancing knowledge and growing spiritual life, what Rufus Choate called "the great vexed questions of the world."

You will see that I am asking for something more than a mere knowledge of foreign languages, ancient and modern, more than a mere study of international literary influences in a technical sense, as they are already pursued, for example, by comparative literature. Such knowledge of the written word, valuable as it is, is only a preliminary step to a perception of the mind and heart of Europe and of the Orient. It is sadly clear today how far apart in spirit the nations of the earth may be, though their ships crowd one another on the ocean routes and their wireless signals web the globe. Without a mutual understanding of national mentality and motives, it is premature to say much about international fellowship. What I am urging is that cultivation of the national intelligence, that awareness of the mental and moral processes of other nations, which is possible only through a heightened respect for literature. It is bad politics to continue to send ambassadors to Paris and Berlin who know no word of French or German; but worse yet is the national self-complacency which accepts such indifference to the significance of language and literature as interpreters of civilization.

In this period of world-wide readjustment, we Americans might as well face the facts. We have never had in this country — except perhaps in the New England of the seventeenth century — any widespread and fundamental respect for literature.

We respect schools and we endow colleges, but when men like Emerson, Hawthorne and Poe venture one step beyond the limits of school and college sympathy, they are obliged to stand for long years alone. The American public has not yet learned to regard such men as objects of national pride. Our Hall of Fame is a newspaper joke. The incorporation of a national institute of arts and letters with its associated academy was bitterly attacked and repeatedly defeated in Congress as being somehow undemocratic. The real influence and standing of a man of letters in any American community — except Indianapolis — is negligible. Most Americans are less proud, at heart, of the world-wide fame of Edgar Allan Poe than of the world-wide ubiquity of a certain kind of car.

I am quite aware that excellent excuses may be offered for this indifference of our public to creative literary art. There are excuses historical and political and political-historical; excuses economic and moralistic and humanitarian, to explain why our preoccupation with other concerns has crowded out the time and thought, the leisure and meditation necessary to the service of the Beautiful and the True. But the fact remains that "backward" Russia is contributing far more to the world's art and literature than these prosperous United States. Who says of any American writer, painter, musician, what a Russian Jew immigrant said to me the other day of Tolstoi: "Tolstoi? The greatest man we had!"

One remedy, surely, lies, not in fault-finding and speech-making, but in the constructive, organized activity of state instruction, beginning at the bottom. The old red schoolhouse — which is gone — did its poor part to make language and literature a vital matter to the life of the community. The old small college — which is going — did its part also. The endowed universities have done relatively less; and the state universities have never yet placed the full resources of the commonwealth at the service of these liberalizing studies which are essential to the intellectual life of our people. You perceive the vicious circle: we have no vital community faith in linguistic and literary

studies — the state universities provide what the taxpayers demand; hence they do not provide what is not demanded. I know that there are many school hours given to what is called "English." But where is even the mother tongue taught with intellectual passion, with a true sense of the mystery and beauty of words, the power and enchantment of great prose and poetry? We need primary teachers who will teach the children of the poor that words are living things. They are battles. Sometimes they are better than battles. Said Cardinal Newman: "If by means of words the secrets of the heart are brought to light, pain of soul is relieved, hidden grief is carried off, sympathy conveyed, counsel imparted, experience recorded and wisdom perpetuated — if by great authors the many are drawn up into unity, national character is fixed, a people speaks, the past and the future, the east and the west are brought into communication with each other, if such men are, in a word, the spokesmen and prophets of the human family — it will not answer to make light of literature or to neglect its study."

Apply that noble sentence to ourselves. State systems of instruction fail if they do not anticipate the actual mental needs of the public. The newspapers beat us at our own game. Like journalists, we must learn to meet the public more than halfway. We need not so much a revision of educational programs as a new vision into the hearts and minds of common men and women. We need a new passion to put into their hands all the keys of civilization, to furnish them, through the written word, a passport to the larger life of humanity.

**PRESIDENT FINLEY:** The Regents are to receive all who will come to the rotunda, which is just outside the place where the written word is preserved. They will be assisted by the State Librarian, and by the keeper of the archives and others, and refreshments will be served by young women who are taking courses, not in the written word, but in another kind of speech, in domestic science in the State College for Teachers. You are all welcome.

## THIRD SESSION

**October 20, 1916, 10 a. m.**

**REGENT MOORE:** Before introducing the presiding officer for this session, Doctor Downing, Assistant Commissioner for Higher Education, has an announcement which he would like to make.

**DR A. S. DOWNING:** In behalf of the Chancellor of the University and the Board of Regents, I am asked to announce the appointments to University Councils, with the years when the terms will expire.

*Convocation Council:* Wilbur B. Sprague (1917), superintendent of schools, Utica, to succeed Darwin L. Bardwell, deceased; Chancellor Charles Alexander Richmond (1921), Union University, Schenectady.

*College Council:* President Joseph A. Mulry (1921), Fordham University, to succeed Rev. Thomas J. McCluskey.

*Academic Council:* Principal Charles F. Harper (1921), Syracuse.

*Library Council:* Willard H. Austen (1921), Librarian, Cornell University.

*Medical Council:* Samuel A. Brown (1917), University and Bellevue Hospital Medical College, to succeed William H. Park; Thomas H. McKee (1921), University of Buffalo, Medical Department, to succeed Herbert U. Williams.

*Dental Council* (deans of the dental schools): Alfred R. Starr, New York College of Dentistry; William Carr, New York College of Dental and Oral Surgery; Daniel H. Squire, University of Buffalo, College of Dentistry.

*Veterinary Council* (deans of the veterinary schools): Veranus A. Moore, Cornell University, New York State Veterinary College, Ithaca; W. J. Coates, New York University, New York State Veterinary College.

*Pharmacy Council* (deans of the pharmacy schools) : William C. Anderson, Brooklyn College of Pharmacy; Henry H. Rusby, College of Pharmacy of the City of New York; Willis G. Tucker, Albany College of Pharmacy; Willis G. Gregory, University of Buffalo, College of Pharmacy; Jacob Diner, Fordham University, College of Pharmacy.

*Nurse Training School Council*: Harriet Bailey (1917), Manhattan State Hospital, New York, to succeed Ella Kurtz; Elin K. Kraemer (1921), F. F. Thompson Hospital, Canandaigua, to succeed Miss Ida M. Root; Henry G. Danforth (1921), 206 Powers Building, Rochester.

*Music Council*: William Henry Hoerrner (1921), Colgate University, Hamilton.

**REGENT MOORE**: In the absence of the Vice Chancellor of the University, the honor has been assigned to me to introduce the presiding officer for this session. He is widely known, not only in this State but in many states of the Union, in the domain of secondary education, and the service which he has rendered to New York State makes him one of the most distinguished of our educators. I introduce as the presiding officer Dr Charles F. Wheelock, Assistant Commissioner for Secondary Education.

**CHARLES F. WHEELOCK**: I think it eminently fitting that at the opening of this session of the Convocation, which is to be devoted to a consideration of the junior high school, a few words should be spoken concerning the influence exerted by the late Dr E. W. Lytle in the promotion of this movement, so that a permanent record of the same may be entered in the proceedings of this Convocation.

At the meeting of the National Education Association held in Asbury Park in 1905, Doctor Lytle presented a paper that had for its title "Should the Twelve-year Course of Study Be Equally Divided between the Elementary School and the Secondary School?"

It is probably impossible at this time to determine with certainty who originated the idea of the six-six plan. Although

Doctor Lyttle's paper has often been referred to as the first definite statement of the plan, he himself never made claim to having originated the idea.

The two decades immediately following 1880 were periods of unusual activity in the investigation of the fundamentals of education, in the reorganization of the educational systems and in the extension of educational opportunities and requirements. The public high school was just coming into its own. Its course was being enriched and extended. The requirements for admission to college were becoming more rigid. Professional education was becoming standardized. Two notable results of the movement were, first, the lengthening of the time required for college preparation, and second, the gathering into the high schools of a very large number of young people who had no thought of continuing their studies in college. The increased requirements for admission to college and the consequent advance of the age for admission, led to a very general investigation of the whole elementary and secondary school course with a view of finding some way by which the time required for college preparation might be shortened without injury to the quality of such preparation.

President Eliot of Harvard, President Butler of Columbia, President Harper of Chicago University, Professor Baker of Colorado, and many others, discussed this question in papers before various educational associations, all of them referring more or less directly to the division following the six and six plan and all of them discussing it with reference to the one thought of shortening the term required for preparation for college. The famous committee of ten, composed of both college men and high school men, seems to have had the same general purpose. In its report of 1893 it urged that "some of the subjects now reserved for the high school — such as algebra, geometry, natural sciences and foreign languages — should be taken earlier than now, and therefore within the schools classified as 'elementary,' or, as an alternative, the secondary period

should be made to begin two years earlier than at present, leaving six years instead of eight for the elementary school period. Under the present organization, elementary subjects and elementary methods are, in the judgment of the committee, kept in use too long."

The committee of fifteen, in its report of 1895, made similar recommendations, always with the view of shortening the period devoted to education in order that the pupil might come earlier to the active duties of life.

In New York State, because of the establishment of the Regents elementary and academic examinations, a peculiar form of school organization had been evolved. It became the usual thing, especially in the schools of the smaller towns, for the pupil, irrespective of his age or grade, who had met the tests in any one of the preliminary or elementary subjects to drop that subject, and take up the secondary subject in natural sequence. For instance, the pupil who had completed his elementary arithmetic as required by the Regents preliminary examination, at once started his study of algebra; if he had completed his elementary school English, he took up his high school English, and so on throughout the course. In the smaller schools of this State it was and still is the general practice to have the eighth grade, and frequently the seventh grade, pupils sit in the same assembly room with the high school pupils and to allow each individual to advance by departments instead of by grades or years. In fact, the line of demarkation between the eighth grade and the ninth grade, in other words, between the elementary school and the high school, was, in a majority of cases, so indistinct as to be nonexistent. The junior academic department that has been definitely recognized in this State, had in it many of the essential features of what we now call the junior high school.

Doctor Lytle was familiar with all those conditions. He had personally visited and inspected a large proportion of all the secondary schools of the State. Those of us who enjoyed the rare privilege of intimate association with him know how this plan grew and developed in his mind, largely as a result of his

observation and experience in the schools for many years before his historic paper was read. Doctor Lyttle looked upon the public high school not simply or principally as a college preparatory school. He was beyond the time in his view of education. The high school to him was the fitting school for life for the masses. His contribution to the discussion of the junior high school in his well-known paper, is noteworthy because he, if not the first, was among the very first to grasp the import of this movement in its larger aspects as it affects the great mass of pupils who do not go to college, and to state its underlying principles with such force and clearness and completeness that very little has been added to that statement in all the discussion of the subject that has been had in the eleven years which have elapsed since his paper was presented.

Doctor Lyttle's name will be associated with the junior high school, not because he originated the plan, but because his clear statement of it more than eleven years ago covered the ground so completely and convincingly. His argument, covering every aspect of the case—physiologic, psychologic, economic and pedagogic—marks an important epoch in the history of the development of this particular plan of school organization. I shall not detain you by reading extensively from this historic paper by Doctor Lyttle, but I would like to call your attention to a few sentences that are characteristic:

Whatever the declaration, "All men are created free and equal," meant to the men of 1776, it means now to the great body of the American people equality of opportunity; translated into educational terms, it means a free high school education for all who can avail themselves of it, and it will mean free college and free university within the coming century.

Teachers should not pose as Don Quixotes charging the windmills of established institutions, but they need to have no respect for windmills if electric motors will be more efficient; for in education, even more than in business, the highest efficiency means the truest economy. In the school, more than anywhere else in the world, "time is money," and much more than money.

Is there any pedagogical point where secondary education should begin? There is. Secondary education should begin as soon as the elementary pupil

has acquired the tools with which he may gain a higher education. Approximately this point in civilized countries very nearly coincides with the dawn of adolescence.

What are the tools with which a higher education may be acquired? Roughly estimated, they may be stated as follows:

- 1 Ability to read news items of the ordinary newspaper intelligently
- 2 Ability to express in words the thoughts gained from reading
- 3 Ability to express in writing the thoughts gained from reading or from conversation
- 4 Ability to express, however imperfectly, concrete images by drawings
- 5 Ability to perform ordinary arithmetical computations through long division and common fractions

If in addition to these abilities, there be gained some skill in the purposeful use of simple tools, like the needle and jack-knife, and a fair readiness in reading at sight simple music, the elementary school will have completed its proper work. Incidentally the pupil will have acquired more or less knowledge of geography and nature, of myth and literature. As a matter of course, he will have increased his self-control and his power of self-direction.

The elementary school may very properly confine its largest energies to sense-training and to the memorizing of those conventional forms of knowledge necessary to civilized life. Beyond this point secondary education should begin, the elementary instruction should be continued and brought to completion, not through tiresome reviews, but through application to fresh subject matter. There should be no violent break in the course of study, no flinging of the child into waters beyond his depth, but a readjustment of discipline and study adapted to approaching adolescence.

We have all noted the marked mental changes that occur in boys and girls in the ages from twelve to fourteen. Among the most noticeable of these changes, and among those that concern the teacher most deeply, is the restiveness and lawlessness that mark the dawning consciousness of power, the supersensitiveness to criticism, the reticence and variability of a mind trying to find itself. The child is trying to throw off the restraints of childhood and has not yet acquired self-control. This age is well characterized as the most unlovable, and yet the most in need of love, appreciation and sympathy.

What bond of sympathy can possibly exist between that boy of thirteen who wants to run away from home, fight Indians, sleep out of doors, play baseball or football, hunt and fish, do "stunts" in running and swimming, and that normal girl graduate who dreams of lovers and dances and

dresses? These two are mental and spiritual antipodes. She loves a cat; he, a dog.

Educators are challenged to study the statistics of elementary education almost anywhere in the United States and from them establish the claim that the eight-grade system is a success. Psychologists are challenged to study the phenomena of adolescence and find, if they can, any justification for the eight-grade system of elementary education.

By beginning high school studies two years earlier than at present, substantial courses in manual and physical training could be introduced at a time when books begin to be tiresome to many and the desire for physical activity is seriously felt. Many a child now lost to school influences would thus be saved for a complete course; many more would be won for college or technical training.

Since this paper was written, many details have been worked out, schemes have been elaborated and the philosophy of the junior high school has been expanded at great length but the foundation, the bedrock of the whole superstructure will continue to be in Doctor Lyttle's paper of 1905.

I feel that I should add just another word regarding Doctor Lyttle. He was for many years associated with this Department. You teachers knew him from his visits to your schools. We knew him intimately, socially, and all who knew him, in whatever relation, loved the man. He was a scholar. He was devoted to his work, unostentatious, not self-seeking, simply imbued with the idea that his mission in the world was to do some good for the world. I think I may safely say that when he left us just about a year ago there was not a person among the more than 300 members of the staff of this University from the President to the most recently appointed clerk or page who did not feel that in his death he or she had lost a real friend.

It is my pleasure now to present to you one who, by his studies in education, by his extensive writings, by his influence on the lecture platform, perhaps has done as much as any one individual to lay a solid foundation for our institutional philosophy, Dr Thomas H. Briggs, professor of education in Columbia University.

## POSSIBILITIES OF THE JUNIOR HIGH SCHOOL

THOMAS H. BRIGGS

*Teachers College, Columbia University*

In Arthur Thomson's fascinating volume, *The Wonder of Life*, we are told that "when Fabre wickedly joined the front end of a file of procession caterpillars to the hind end, they went on circling round and round the stone curb of a big vase in the garden, day after day for a week, covering persistently many futile meters." As we watch the earnest — sometimes even frenzied — activity of our schools, we may occasionally be inclined to wonder if some grim humorist has not succeeded in arranging *our* procession so that we follow, follow, with seldom a pause to understand whither we are bound or why.

It is incumbent on us, especially those of us who do much to direct the destinies of others, occasionally to pause and ask whither we are bound, what means we are using to reach our goal, and what degree of success we are achieving. In profession, at least, we are pretty generally agreed that our goal is to aid every child to live best the life for which he is by nature fitted. To do that even measurably well in a democracy, we must give to each and every child the tools which in common with all his fellows he needs. This we are doing measurably well in the first six grades of the elementary school. Beyond this, we must explore the interests, the aptitudes and the capacities of the pupil. We must at the same time reveal to him the possibilities in various fields of education, so that, even while profiting by the thoroughly worth-while material presented to him, he may intelligently determine his future training. And finally, in the upper reaches of childhood, we must endeavor to project him as far as possible upon that special training by which the combined wisdom of the pupil, his parents, and his teachers decides he can be of most worth to himself and to society.

The value of the means that we are using to reach our goal must ultimately be determined by the degree of success attained.

As that is difficult to measure, we may at least inquire if the means commonly used were devised in an effort to lead the same types of pupils that we now have to the same goal that we now profess to seek. Most assuredly not! A moment's reflection shows that a large part of the machinery of our secondary education is a relic of the time when but few pupils, and those mostly boys, continued in school, boys bound for the professions of the ministry and teaching, later of law and medicine, and still more recently of the various branches of engineering. Even granting that the means used were the best conceivable, which in our greater knowledge of education we can not do, we know that today conditions are vastly different from what they were even a generation ago. Then the secondary school was considered to a large extent a sifter, to preserve only those with most ability to do abstract thinking; today it is considered rather a sorter, to classify those with similar abilities and needs, of whatever kind, so that they can be most adequately satisfied. With amazing and oftentimes embarrassing rapidity, we are tending actually toward the condition so often and eloquently presented as ideal, the condition of having in school till at least the age of sixteen all the children of all the people. It is certain that we should not attempt to make professional men and women of the 600,000 boys and girls who are annually entering our secondary schools. And it is reasonable to hold that a training which may be good for those worthy the professions is certainly not the best for those with other destinies.

Certainly no one is satisfied with the results. It is charged, without denial, that our children begin their professional training too late, that the desired general culture is not manifest to a satisfactory degree in the majority of the graduates of our secondary schools, and that the needless elimination of pupils by studies for which they are in no way fitted and for which they have no conceivable need is one of the darkest pages of our modern history of education.

Tradition is far too frequently more potent than reason — even with the most intelligent. So long as tradition is sound, it

is saving. But tradition makes us follow outworn creeds, tradition makes us use ineffective means, tradition makes us blind to changed conditions, and tradition makes us complacent with results that would be shocking evidence of failure in any field of objective activity. So long as we are busily doing something, perhaps even doing that something well, tradition makes us satisfied not to ask if the task be worth doing at all.

But the light is breaking. Perhaps never before in the history of the world have so many intelligent men been pondering the problem of the education of youth — not only pondering but also earnestly endeavoring to achieve a democratic education. Our philosophers of education, led by that doughty pragmatist, John Dewey, are on the basis of facts painstakingly gathered by trained students presenting more clearly than ever before the ideals of education in a democracy. Our students of comparative education, showing how a definite ideal has made over the Prussian nation since the time of Bismarck, have aroused us to possibilities in America. Our historians of education, revealing the fact that we have never fairly faced the most important problems in the education of youth, have given us courage to make changes with the knowledge that we are not violating the conclusions of those wiser than we. Our students of administration, presenting the facts of elimination, have shocked us into energy. And our psychologists, by destroying the natural but untenable belief in the general transfer of acquired powers and by revealing the tremendous ranges of individual differences, have wrecked the old mansions and indicated the foundations of the new. Even the layman, who has hitherto for the most part kept his hands off the secondary schools, becoming possessed of some of these facts, is beginning a criticism from without of which we shall doubtless hear more and more with the increase of high school alumni, a body not intimidated by the defensive sneer that they are ignorant of what the high schools are doing. The elementary school has been reformed by criticism beginning from without. We have now an opportunity to set our house in order before others arise and force us to the task.

Out of this situation, so barely sketched, has grown the agitation for the junior high school. As yet no one can define it. As yet no one can safely prophesy what it will be. But certainly it so far typifies to the schoolman with a vision the opportunity of more easily embodying into his school system the various means of improvement that have separately or in small groups already been introduced into the grammar grades or into the high school. Unfortunately, it must be recorded, there are some who with a partial vision or else who, seeing the light reflected from the faces of others, loudly proclaim the establishment of junior high schools when in truth they have changed but little the traditional organization and work of the school. And there are others, professional administrators rather than professional educators, or it may be true educators embarrassed by the marvelous increase in registration while puzzled by the need of economy, who see in the junior high school merely a means of getting ninth grade children educated more cheaply, taught by elementary school teachers in elementary school buildings.

But what we may call the real junior high school movement is not forwarded by these men; it finds its origin and its strength in those true educators who, facing the facts without prejudgment, have a vision of what may be done for all adolescent boys and girls. Because the visions are different the junior high school appears with many varied characteristics, but undoubtedly it is by these pioneers conceived as an opportunity — an opportunity more easily to break with tradition, an opportunity through congregation and segregation to form groups homogeneous for similar training, an opportunity to secure the true function of the earlier stages of secondary education, the exploration, on the one hand, of the interests, the aptitudes and the capacities of the pupils, and, on the other hand, the exploration for them of the possibilities of each of the great fields of learning.

Thus to define an institution as an opportunity is meaningful only to a man with a vision, to a man who, recognizing needs, has longed for a means of satisfying them. In a new type of school, as in a new building, it is easier to make dreams come

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true, for attention can there be focused on the formulation of new plans. The familiar objection of the unimaginative, "But we've never done that before," is more easily answered, for we have never had this type of institution before. The opportunity of the junior high school should be especially welcomed by those who are constantly complaining of prescription from above. The colleges can have little objection to the program for junior high schools, partly because much of it is for pupils who will never enter, who should never enter, institutions of higher learning, and partly because their own demands can even more adequately be satisfied for the academic type of pupil in a six-year secondary course. Perhaps the two extra years will permit high schools to give to those preparing for college some of the culture possible through the prescribed subjects but largely prevented by the present requirements of formal examinations. Fair notice must be given, however, that higher institutions, both of state and of college control, are preparing to insist that their present requirements be pushed two years lower down into the grades. The only way successfully to combat this threatened pressure is to formulate — and to formulate first — a program of reform. Of course the more convincing this program is, the more likely it is of acceptance.

The junior high school problem has two phases, one concerning the rural community or village, the other concerning the town or city. I am not sure but that the former is the more important of the two, for most of the modern secondary school program has been formulated by city men for city conditions. Imitated by the small school system of nine, ten, or even of full twelve grades, it has a stronger tendency to formality, with its subsequent bad results. Almost inevitably it returns to the local community pupils eliminated before the course is finished and not notably prepared for the problems immediately presented, and impoverishes the community by permanently taking out of it the most able of the pupils, who after more or less higher training find in cities greater opportunities for their talents. In so far as education is a state or national function, this condition can be

defended; but as education is in America primarily a local function we see year after year small and often economically weak communities ignorantly impoverishing themselves for the benefit of the larger and wealthier cities. For the rural or village community, then, the junior high school offers the opportunity of satisfying the needs of all the pupils, particularly in terms of home life. Any other need may be satisfied if the community, with the aid of state funds, can afford it; if not, then it must as surely become a function of the individual as the study of instrumental music now is.

The junior high school problem of the town or city is somewhat different. There full and differentiated courses can be offered provided the children of similar needs are congregated. In a city there are a number of elementary school buildings each one containing one, two or more seventh and eighth grades, but often one of each, and that one frequently without a full complement of pupils. This condition not only makes the per capita cost in these grades greater than it should be, but it also effectively prevents any differentiation of courses, usually perpetuating many formal elements of no value to anybody. By congregating from five to ten classes of each grade, the school authorities may after exploration segregate the children into relatively full sections according to their manifest needs, their abilities, their physical age, their sex, or any combination of these factors that seems advisable.

Such segregation is made on the assumption that the more nearly homogeneous a group, the better work its members will do, an assumption abundantly justified by experience in many places. Objection to this plan is sometimes made by those who declare that the dull child needs the stimulus of the more gifted. He may, particularly if the pacemaker is not so far ahead that the laggard appreciates only meaningless movement in the distance; but the objection overlooks two facts: first that as no group can be composed of pupils exactly alike, there can be to the weaker members of a group a stimulus by those slightly better; and, second, that bright pupils have rights in school just

as truly as the dull. It is a truism that the most retarded pupils are those who are naturally brightest. Any teacher can with patience develop a dull pupil relatively near the limit of his powers; but the teachers, from kindergarten to college, who do not at times retard the brightest members of their classes are few and far between. I maintain that each child should be in a homogeneous group that will move at the optimum pace, whatever that be, for its members.

Several methods are used to form groups homogeneous with respect to ability and to life aim. The least common is that of psychological tests. While far from infallible, this method has shown so high a degree of success as to promise much in the future. The safest method at the present is undoubtedly that of securing a joint decision of pupil, parents and teachers after an exploration that reveals as many facts, about both child and proposed vocation, as possible. Whatever the method, American democracy demands that if the classification first made seems wrong, a change with the least possible loss shall be allowed. It is interesting to note that the movement in Germany to postpone from nine to twelve the age of differentiation, which there is all but permanently decisive, seems to be gaining strength. Probably in America we shall find it expedient to have members of all differentiated groups in the school thrown together for some academic as well as for social activities.

How will the exploratory courses differ from those offered at present? In the first place, every detail will in itself be a fact worth knowing; nothing, absolutely nothing, at this period of a child's training will depend for its justification wholly or even largely on its deferred value. While being thus of worth, the facts presented will reveal the possibilities in the general field of learning. This means, of course, that they will cover a larger part of each field than now, that the work will for the most part be extensive rather than intensive. In literature the pupils will be led to read widely, beginning with what they really like and proceeding to more refined masterpieces only as growing tastes, manifested by responses, will permit. Instead of learning fifty

facts apparently of more or less equal importance about one classic, they will be led primarily to appreciate the one big fact in each of twenty classics. If they advance to a higher study of literature, they will have a background for their future study and a method of relative values; if they do not, they will have a background for their future reading and a method that should make it intelligent. In the other phases of English, formal grammar gives place to composition, oral and written; and in composition undoubtedly the tendency is toward the more common types of writing at the expense of artistic descriptive and narrative themes. In music and in pictorial art, the tendency is without doubt toward increasing the training for appreciation, even at the expense of production, but through singing, drawing and modeling, to determine which pupils have talents sufficient to warrant further instruction. The progress for history is not so clear. Many reorganized schools are continuing the study of the United States, frequently introducing the beginnings in Europe of the Union; others are introducing into the lower years the ancient and medieval background now commonly presented in the ninth grade. A course in community civics or the applied principles of government is very general.

Mathematics, instead of being confined to the higher reaches of arithmetic, will concern the general applications of arithmetic, and will introduce the elements, the more practical elements, of algebra, constructive geometry, and even of trigonometry. In science — general science, if you please — the range for children will be like the range for real scientists, into whatever fields the solution of real problems leads. The artificial vertical stratifications of science into chemistry, physics, botany and the rest has its chief value in the logical organization of facts *after* they are acquired. Early adolescence is the age for acquiring the facts of science and the simple principles which, while useful in themselves, reveal the possibilities in future study. Acquired matured knowledge frequently overlooks the earlier naïve questions, which demand honest answers as the foundation for the desired progress to the later ones. In the industrial arts, "manual training,"

which prostituted itself in so many cases by substituting for real work stock models of "spool holders and towel racks for mother," is resolving itself into the various fields of industrial work. In the sensibly equipped schools, even though small, the boys successively learn the elements of working with wood, sheet metal, cement, electric wiring, etc. This training is assuredly of value, whether the boy learns thus in which field of industry he will earn his living, whether he becomes a householder and needs practical knowledge in putting about his home, or whether he becomes an employer of labor and needs as a citizen a comprehension of the workingman's point of view.

This exploration, then, gives each pupil some knowledge of the general field more exhaustively studied in higher courses, and thus enables him to choose more wisely his future curriculum. Our system of electives in the senior high school and in college presupposes an intelligent and informed elector; under the old system he might be intelligent, but he could not be informed. If, as is quite possible, even such exploring courses should lead a pupil into a general elective which later he might wish to change, he still could do so and not be more retarded in his progress than most pupils are today. Exploration at the age of twelve to fourteen is much more economical than it is two or more years later.

At the same time that the junior high school courses are exploring for each pupil the larger fields of knowledge and of skill, these same courses are exploring him, revealing, as nothing else can do, his interests, his aptitudes and his capacities. On the basis of all this, then, the pupil enters the senior high school, where he receives an extended training in the work for which he seems most fit. Fortunately this plan has the approval of both the radicals and the reactionaries: each receives the pupils that he most wants and each is thus enabled to accomplish more than with a group half of whom are working under protest and hence ineffectively.

But the junior high school is an opportunity for a reform of more than the curriculums or the courses of study. It may even be justified, I suspect, if this reform is not immediately achieved.

In the new type of school the social administration may be modified so as to be more effective with boys and girls of early adolescence — the most unlovely and yet the most in need of love of all human beings, as Doctor Lytle so poignantly said many years ago. Those schoolmasters who have made gradual adjustments to the growing sense of self-strength report, I think without exception, that the plan prevents many crises of administration, some of which are likely to cause a divorce of the pupil from the school. The long-continued atmosphere of the primary grades has proved enervating and certainly ineffective to many pupils in the grammar school, and the sudden change to the pseudo-college spirit frequently found in the high school has had equally disastrous results. When grouped by themselves, with both men and women teachers, adolescents are likely to receive treatment more nearly suited to their natures. Whatever the cause, there can be no doubt that the problem of discipline in our junior high schools is far less than it generally is for similar pupils in the old types of organization.

The possibilities of social administration of the junior high school are all but limitless. As the teaching is now departmentalized, either wholly or in part, it is imperative that some one teacher be delegated to have personal oversight of each pupil. If, as has been charged, the sudden change at the beginning of the usual high school course from one to five or more teachers is bad for the fourteen year old child, then assuredly it would seem worse for him when two years younger. A teacher-adviser who knows intimately a small group of pupils, taking their attendance, acting as mediator between the child and his other teachers or the principal, can accumulate enough facts during a year to gain much understanding of the child's personal peculiarities and needs. This makes possible guidance of several kinds — social, educational and vocational. I am not sure but that at the age of early adolescence, especially when it encounters a new school organization, the intimate personal advice is not of most importance. But there are possibilities of real help in each of the other kinds. Some teachers in a departmental organization give too

much work; some do not discover that the details of the work are not clear to all pupils; some are so coldly objective that certain children are repelled even from the subject; and none are officially designated to look after the failures or to see that the exceptionally able child does not develop bad mental habits through too little effort. The dull and the bright may secure a fortuitous interest from some teacher, but the mediocre child, undramatic in looks, ability or social position, is likely to pass through the whole year with no especial attention or advice. Much has been said about the inability of the pedagog to give infallible advice to children about their educational and vocational futures. We must admit the lack of omniscience; but surely the advice of an adult capable of teaching a child, an adult who knows that child more or less intimately through one or more years, an adult who all the time is being better trained, can helpfully supplement that of a parent. If it is not wiser than blind chance, which now directs the destinies of perhaps a majority of children, then it is high time we launch a campaign to secure a better type of man and woman for our teachers.

Involved in this whole matter of social administration is the proposed socialized recitation. In it the pupils work together toward the intelligent solution of a problem which they have either proposed or else which they comprehend, approve, and adopt as their own. In other words, it is an effort not, as the uninformed would have it, to substitute easy work for hard, but to substitute for meaningless tasks, for drudgery made endurable only by the demand of the human mind for *something* that it can do and the naïve satisfaction in *any* task that it can achieve — to substitute for this drudgery that destroys initiative and self-directive independence, tasks so obviously worth while as to secure work that is intelligent and hence truly educative. It demands for pupils what all of us demand for ourselves — a clearly conceived problem which because of its worth secures an interest and hence challenges ingenuity and serious sustained effort. Although I have on occasion heard even schoolmasters admit under pressure that they had not reached the limits of their

possible development, I have not known any large number of them to chasten their spirits or to discipline their minds by undertaking tasks that they did not consider to be of some real worth.

Such, in brief, are some of the possibilities of the junior high school. Objections there are in plenty — both to the underlying theory and to the accomplished fact. Unfortunately for the advancement of education, objections are easier to propose than constructive programs. "Our schools are good enough as they are (Look at me; I am the result!); the junior high school does not exist, anyway, except in name; we can make any changes we need under the present organization; there are no suitable textbooks; teachers are not trained for the new work; parents object to twelve year old children walking a mile more or less to a centralized school; principals of elementary schools object to losing the cream of their children and their best teachers; the new type of school will cost more;" and so on, and so on. Each of these objectives merits discussion, but there is now no time. I have no argument for a junior high school when the desired ends are being achieved under the old organization; I have no argument for it when there are insuperable obstacles in the way. But I will admit only one obstacle that is really insuperable, and that is the superintendent and principal without a vision. The junior high school is an opportunity, not a specific; and unless you have a definite program for the reform of the curriculums, of the courses of study, of the methods of teaching, and of the social administration of your intermediate grades, I strongly urge you to defer the organization of junior high schools to your successors.

**CHARLES F. WHEELOCK:** You all know that we in New York State are charged with being ultraconservative. We have an iron-bound, water-tight system that it is very difficult to change. A new movement finds not only all the obstacles that have just been enumerated by Professor Briggs, but many others in the way, and it is rather difficult to get it started. Let me call your attention to the fact that the elementary syllabus of

1910, in this State, perhaps, was the very first state-planned, definitely organized, with a view of doing some of the things that the junior high school movement seeks to do. Provision in that syllabus was made for taking some of the high school space in the seventh and eighth grades and for a differentiation in the course of study beginning in the seventh or eighth grade. Some facts that have not yet been published may be of interest in this connection.

During the school year 1914-15, there were 10,299 pupils of the eighth grade in this State studying algebra under the provision of our state elementary syllabus that permits study to be done earlier. In Latin there were 2529 in the eighth grade. In German there were 18,365; in French, 1329; in commercial geography, 2879, and so on down the list. However conservative we may be in this State, I think perhaps we have really done more than they have done in some states that have talked about it more than we have. While we have not been talking so much as other states, we have been doing much in this direction.

So far as definitely organized junior high schools are concerned, we have but few, but we have some that have not professed to have solved all the educational problems by working at them. You will remember the most excellent paper by Superintendent Weet we heard here last year, which seemed to me one of the sanest and most conservative statements of the junior high school problem yet made. The work has been going on in Rochester through the year and we are very fortunate today in having with us the principal of the junior high school in Rochester who will tell us how the work outlined and discussed for us last year by Superintendent Weet has been progressing. I have pleasure in introducing Mr James M. Glass, principal of the Washington Junior High School of Rochester.

## RESULTS OF THE FIRST YEAR'S WORK AT WASHINGTON JUNIOR HIGH SCHOOL, ROCHESTER, NEW YORK

JAMES M. GLASS

*Principal, Washington Junior High School, Rochester*

The Washington Junior High School was organized in September 1915; the first school year closed in June of the present calendar year. This paper can, therefore, deal with results in the light of only one year of experience. Since perspective is lacking definitely to confirm reliable conclusions, all statements based upon one year's experience are necessarily tentative in character. Judgments of today will be, to a greater or less degree, revised by the perspective which can be obtained only by a term of years. This situation is not peculiar to the junior high school at Rochester; it is generally true of the same type of school administration everywhere. There was much theory and little established fact to guide us in the organization of Washington Junior High School. We welcome this opportunity to place before you the results of our first year's work and our tentative conclusions in the hope that discussion may be aroused. Your challenge will serve as a check to our administration.

One year ago, at the annual Convocation, Superintendent Weet gave in detail the reasons for introducing the junior high school into the Rochester system, the plan of organization, the greater flexibility of courses offered to grammar school pupils, the revision of the courses of study undertaken in the four departments, and stated as his belief that the junior high school would fulfil needs already long existing. Our experience has justified this conviction. The underlying educational purposes of the school remain today unaltered. The success which the school so far has attained in the realization of its essential aims was predetermined before the school opened. This paper will therefore be in the nature of a sequel to the paper read one year ago.

*Four Periods of One and One-half Hours Each*

The school day, six and one-half hours in length, is divided into four periods of one and one-half hours each with an allowance of thirty minutes for changes of classes and dismissals. There are two periods in the morning and two in the afternoon session, of equal length. School begins at 8.30 and closes at 4.15.

*Four Departments: Brief Outline of Courses*

1 *The academic department.* This department continues the usual grammar school curriculum of the seventh and eighth grades, but in some respects it affords a more thorough and more direct preparation for the accepted general course of the upper high school; for example, pupils elect Latin or German at the beginning of the eighth grade. Concrete observational geometry and a carefully planned foundation in algebra are parts of the mathematics course in the eighth year, and elementary science is given twice a week in the seventh year.

2 *The commercial department.* Pupils elect this course at the beginning of the eighth year. Commercial English is distinct from the English of the academic department in that greater emphasis is given to business correspondence and word study, but it includes grammar, composition and literature. The mathematics includes business practice. Typewriting receives one-half of a period a day, and commercial geography and business writing another half. The fourth or broken period includes either shop work, or cooking and sewing, and commercial history. It is therefore apparent that this year of work is essentially preparatory to the specialized commercial subjects of the regular high school.

3 *The industrial arts department.* Boys may elect this course at the beginning of the second half of the seventh year. The course is prevocational and entirely preparatory in character until the ninth year. The day's program is divided equally between book work and the shops. English, history (largely industrial in character), civics, mathematics, as applied to shop

work, and science comprise one-half of the day's work. The other half is spent in the shop. Mechanical drawing is taught by the shop instructors in direct application to the particular shop. There is a series of six try-out shops of ten weeks each throughout the seventh A term and the eighth grade. During the ninth year an elective trade is selected by the boys for the entire year, their choice being based upon their prevocational training of the try-out courses. The book work of the eighth year is continuous through the ninth year with the addition of the history of economics.

During the first year there were many requests from parents that boys be allowed to continue, prior to the ninth year, the shop in which they were registered during the try-out period. In no case was this request granted. Before the end of the year both parents and boys discovered the wisdom of the try-out plan and since the beginning of the current term not one request of this nature has been made. The try-out plan has proved to be an invaluable type of vocational guidance.

4 *The household arts department.* Girls elect this course at the beginning of the second half of the seventh year. It also is equally divided between book work and household arts work. Seven-tenths of the latter is allotted to sewing, design and a study of textiles, and three-tenths to cooking. The advanced course of the ninth year includes dressmaking and millinery.

#### *Contributing Schools and Recommendations of Courses*

The junior high school is the geographical center of seven elementary schools whose pupils enter the junior high school at the completion of the sixth year. During the seventh B, or the first half of the seventh year, all pupils take the academic or general course. Pupils and parents thus have opportunity to become familiar with the flexibility of courses in the junior high school and teachers can study aptitudes and the home conditions, either one or both of which will control the teacher's judgment in recommendation of department to each pupil. Our custom is to recommend the choice of department to the home, leaving

the parents the power to approve or reject the recommendation. Very rarely has there been a difference of opinion between school and home in the election of courses.

### *Registration by Departments*

The number of pupils in the school is 1150. In the eighth and ninth years, where courses are fully differentiated, the distribution of pupils is as follows: academic 40 per cent, commercial 35 per cent, industrial arts 17 per cent and household arts 8 per cent. Thus when all pupils have entered upon differentiated courses 40 per cent continue the general course, while 60 per cent are registered in the courses for the first time offered to eighth grade pupils by the junior high school.

### *One Inclusive School Unit*

Our organization has purposely been directed to effect a solidarity of school life, for example, the academic and commercial classes report directly to industrial arts and household arts teachers for either shop work or cooking and sewing; commercial English is taught by the academic English teachers; and commercial history is part of the academic history program. This factor in the organization has resulted in an interrelation of departments which has helped to prevent their isolation. Other factors contributing to this most desirable result of preventing the creation of four entirely distinct school units within one school have been the general school activities, in which no distinction of departments is recognized; the development of pupil participation in school control; our school community government organized with no reference whatever to departments; and the absence of interdepartment contests of any description. Our organization, in effecting an interrelation of departments through the interweaving of classes and teachers, has resulted in acquainting the pupils with the aims and purposes of all departments. The intelligence thus gained is vitally essential to a right choice of departments.

*Subject Grouping*

The division of the school day into four periods has resulted in the adoption of a subject group organization for each member of the faculty rather than a single subject unit; for example, the English teachers of the seventh grades include in their class work grammar, oral and written expression, literature and spelling; the history teachers, history, civics and geography. In the eighth grade, geography is dropped and literature is transferred to the history teachers, thus effecting a saving of time in the English group, where Latin or German is introduced to replace the literature. Similar instances of subject grouping occur in the other departments.

This subject grouping in the seventh and eighth grades has necessarily led to a subject group promotion plan rather than a strict subject promotion plan.

The statistics of nonpromotion during our first year will illuminate the benefits which we believe have resulted from the adoption of the subject group promotion plan. The percentages of failures were as follows:

	January 1916	June 1916
Failures in one subject group.....	5.8%	8.1%
Failures in two subject groups.....	.6	1.4
Failures in three subject groups.....	9.7	3.6

Obviously the subject group promotion plan is a distinct advance over the usual grade promotion plan. It does not, however, give all the advantages that accompany a strict subject promotion. On the other hand, a strict subject promotion implies a strict subject departmentalization. Such a departmentalization has been commonly regarded as responsible for much of the unfortunately abrupt transition between the elementary school and the high school. It is fair to assume, therefore, that the disadvantages which the subject group promotion plan may have, are fully offset by the gradual transition which the departmentalizing by subject groups affords.

### *Eliminations*

In June 1915 (prior to the organization of the junior high school) the eliminations, including all causes, in the seventh and eighth grades of the contributing schools amounted to 28 per cent. In June 1916, eliminations (including all causes) in the seventh and eighth grades of the junior high school amounted to 20.5 per cent. Here was a decrease in elimination of 7.5 per cent in the junior high school; the explanation of the saving in elimination apparently lies in the greater opportunities afforded to seventh and eighth grades by the junior high school.

A more significant comparison is found in a study of the proportion of pupils who formerly completed the eighth grade of the grammar school and who entered the first year high school, and the proportion of pupils carried over from the junior high school eighth grade to the ninth year.

In January 1915 the proportion of pupils completing the eighth grades of the contributing schools and entering the first year of the high school was 49 per cent. In January 1916 the junior high school carried over from the eighth to the ninth year 94.5 per cent — a phenomenal increase of 45.5 per cent. In June 1915, the contributing schools sent 49.5 per cent of their graduates to East High School. In June 1916, the junior high school carried over into the ninth year 77.5 per cent of the pupils who had completed the eighth year — an increase of 28 per cent. This decrease percentage in June as compared with January is undoubtedly due to the unprecedented opportunities for employment which have come since the beginning of the current year.

Formerly pupils transferred from the grammar school eighth grade to first year high school, were subjected to both a change of schools and practically a complete change of the course of study. In the junior high school both conditions are remedied; the change from the eighth to the ninth grade does not involve a change of schools and furthermore it means simply a continuation for which preparation has been made throughout the eighth year.

The junior high school therefore has already prevented a large percentage of the mortality occurring between the eighth grade of the grammar school and the first year of the high school. The preparatory training in the eighth grade for the work of the ninth year must inevitably result in preventing some of the mortality at the close of the usual first year of the upper high school. In defense of this statement we can give only the following data: 93.5 per cent of the pupils of the first half of our ninth grade in the academic and commercial departments were carried over into the second term of the ninth year. One year previously 83.6 per cent of the pupils of the contributing schools in the first term of the first year high school class continued their courses in the second term. At the close of our current term, when the first transfer is made between the junior high school and East High School, a more significant comparison can be made.

#### *Overage*

The differing overage conditions in the various departments are interesting and significant. In the academic department, 35 per cent of the pupils in the eighth and ninth grades are overage; in the commercial course 44 per cent. In the industrial arts course, however, the overage percentage amounts to 63 per cent, while in the household arts it is 61 per cent. This large increase in overage percentages in the industrial and household arts departments is proof that the greater adaptability of courses and the more direct training for commercial and vocational positions have resulted in preventing the elimination of overaged and retarded pupils.

#### *Selection of Faculty*

The wisdom of selecting experienced grade teachers with their more intimate knowledge of seventh and eighth grade pupils, in preference to experienced high school teachers with their college training, has been demonstrated so conclusively that the same basis of selection will be followed for the next junior high school. The members of our faculty regard the work of the junior high school as a promotion. It was predicted that they would volun-

tarily undertake supplementary training; fourteen junior high school teachers attended summer school sessions during the past summer. The same attitude of mind and an equal eagerness to profit by every opportunity is manifest among all members of the faculty. With pride and gratitude, I bear witness to the strong professional spirit, the determination, the willingness to submerge personal interests for the common welfare and the marked esprit de corps pervading all our sixty-two teachers. If a questionnaire were addressed to our teachers regarding their preference between the shorter hours and the teaching of all grade subjects in the grammar school and the longer hours of the junior high school on a departmental basis of a single subject group, it would receive an unanimous answer in favor of the junior high schools. I make this statement with complete confidence in the probable result.

### *The Early Adolescent Ages*

We did not fully anticipate the inspirational gain which would come to the student body and faculty as a result of bringing into one school pupils of the seventh, eight and ninth grades. Numbers make for enthusiasm, particularly when similar ages and common interest prevail in a student body. The divergence of age in a grammar school and the comparatively smaller number of upper grades are inhibitive to the development of common interests in the school as a whole. When pupils of thirteen, fourteen and fifteen years of age were segregated in a distinct body in large numbers, there developed at once conditions which have been among the most pleasing and satisfactory results of the junior high school organization. The newly awakened interests of the early adolescent period make for the enthusiasm and the school spirit pervading our school life.

### *Pupils' Participation in School Control*

If you were to visit Washington Junior High School, one of the most distinct and lasting impressions which you would take away with you would be the spirit of cooperation between faculty and pupils. Even we who have seen the development of student

government step by step are still in wonder at the success which has accompanied the experiment. Here, as elsewhere, it is true that everlasting diligence is the price of success. Pupil participation in school control demands, first, the strong guidance of the faculty, and, second, unremitting attention.

Before we undertake to give the results as we have experienced them in our student government, it will be necessary to give a brief synopsis of the organization. The unit of self-government is the home room section of an average of thirty pupils. The pupil officers of the home room unit, of which there are forty-one, are as follows:

1 President, who is recognized as the class leader, the presiding officer and the teacher's representative in her absence.

2 Vice president, with the usual accepted duties and also the business manager of class and school activities.

3 Secretary, who in addition to the recording of the minutes, cares for notices to the home room section, is the medium of communication between the home room teacher and the office and between teachers, and takes charge of the pupils' report cards on report card day.

4 Treasurer, who in addition to the usual functions of a class treasurer assumes charge of the deposits made by class members in the school savings bank.

5 Two class guides, who lead the class in corridors in fire drills, to the school assemblies and elsewhere about the school.

6 Two class deputies, or class marshals, who keep straight lines in marching and assist in maintaining order in classrooms and in corridors.

7 Two class ushers, who receive visitors, escort them from class to class, answer questions as to the class work, and in general extend the courtesies of the class.

8 Two attendance secretaries, who assist the home room teacher in the record of attendance and tardiness. They have initiated contests for perfect attendance and punctuality championships, which have been genuine contributions.

9 Librarian, who has general oversight over the grade library and who operates under the direction of the school librarian.

The home room sections are federated into a school community upon the pattern of states and federal government. We prefer the title "School Community" to student association, first, because of its broader meaning and its more direct relation to life outside the school and, second, because it is thus related, through its name and purpose, to the course of study in civics which is based upon the more modern idea of community civics. It furnishes concrete, direct applications in the study of community civics.

The school community interests are administered by five committees:

1 The luncheon committee, which with one member of the faculty, has sole charge of between one hundred and two hundred fifty pupils remaining for luncheon.

2 The bicycle committee, which receives the bicycles at the bicycle room, issues checks, and at dismissals returns the bicycles to their owners.

3 Committee of office messengers, which carries urgent notices to the faculty when such notices can not be handled through the mail system or the bulletins.

4 The committee of school community deputies, which maintains order and discipline at the school entrances and upon the school grounds. Here was a critical test of student control, but it is today an indispensable feature.

5 A safety-first committee, of one representative from each home room section, which has general oversight of all conditions in the buildings and on the school grounds which may menace general safety, reports upon fire hazards and unsanitary conditions and assists in the proper care of school property.

The home room teacher is the class counselor. All pupil officers are elective, but the nomination of candidates is made by a committee of two pupils and the home room teacher. The process of nomination and election is carefully and deliberately controlled.

In addition to the home room teacher's control, one member of the faculty acts as director of the respective groups of class officers; all pupil officers holding the same office in the class units are associated in a distinct group for instruction in their duties and for mutual inspiration under the control of a faculty director. There are nine such groups of class officers. The committees of the school community are also under the control of faculty directors.

At the beginning of the first year we adopted one fundamental principle, namely, that no office shall be created until an actual need exists. We made a study of the school needs for pupil cooperation. Where an actual need was discovered, in which the duties of a pupil officer were plainly evident, we created the office to meet this need. We believe now that a complete organization imposed upon the school at the beginning would have been an almost irrevocable mistake. The gradual development in the organization of pupil government has resulted in a naturalness and simplicity which have proved fundamental to the success of the plan.

As has been intimated, we believe that a pupil organization demands unremitting attention. The fourteen groups of pupil officers hold monthly meetings with an elected presiding pupil officer, but always with the faculty director present. Each home room unit has a weekly class meeting for the discussion of class and school community interests. Frequently a program committee of pupils provides debates, a literary program, reports of current events and other programs related to the course of study. The home room teacher is always present as adviser and counselor.

Once each term reports of work undertaken and accomplished are made in a school assembly by the chairmen of the groups of officers and the committees. It would be difficult to overestimate the inspiration which has resulted from these reports.

We have adopted buttons as the insignia of each office. These are worn with the same degree of pride as are the insignia of office which occasionally come to you and me.

Time does not allow more than a suggestion of some of the benefits and results of pupil participation in school control.

1 We do not believe — we know — that Page was right when he said, "The teacher who takes away from a child the joy of doing a thing for himself, robs him of his greatest pleasure," and he might also have added that it robs him of the most natural medium of his growth in initiative, self-control and good citizenship.

2 Self-government has developed a keener sense of responsibility and has been a large contributing factor in saving pupils from the dangers threatening their transfer from the undivided influence of one grade-teacher to the divided influence of many teachers. It creates conditions favorable to the growth of self-control.

3 It has constructed the internal, invisible, but the vital school. It has created a school atmosphere of cooperation, the animating motive which solely determines the success of every school activity and, to a degree which can scarcely be overestimated, controls the success of all school work.

4 It has to a great degree substituted cooperation for coercion. We anticipate that a small minority will always exist, who can not be persuaded to accept the substitution.

5 It has relieved teachers from duties which can, with greater profit to the school, be delegated to pupils. It is practicable and useful.

6 It has resulted in not a theoretical but a practical pupil training to live in self-governing communities: home, neighborhood, ward, city, state and nation. It is a good citizenship, not merely training for good citizenship.

7 It has transformed our school motto — "Do in Cooperation" — from a theoretical standard to an actual living reality animating our whole school life.

Concrete instances of actual results may serve to warrant our enthusiasm in pupil government:

1 When a teacher is absent from the classroom, in attendance at conference, or when temporarily absent from school, the class

president is seated at the teacher's desk and conducts the class work as planned by the teacher. Visitors have happened into such rooms upon these occasions and seated themselves, thinking that the teacher was present.

2 No teacher does police duty in the corridors, at the exits, or upon the school grounds, except the faculty directors who are there to study the situations for the sake of improvement and to assist pupils in the performance of their duties.

3 With a minimum of faculty effort, there is a degree of order and decorum in the classroom, hallways, assemblies, at dismissals and during the luncheon hour of which we are justly proud. But we render credit where credit is due.

4 The businesslike earnestness characterizing pupil participation in school control is reflected in a similar attitude of mind in all features of school work. It is the principle of action and reaction with immediate application to the more serious functions of the school.

5 Many a troublesome disciplinary case has been transformed into a trustworthy and helpful pupil officer. During the first term an industrial arts boy, who was rapidly approaching suspension, was elected to a position of responsibility. At a subsequent meeting of pupils at which he presided, I overheard him say: "Now, fellows, I want you to return quietly to your rooms; remember, the school is still in session." His case can be duplicated by the score.

### *Conclusion*

Let me say in conclusion that an attempt has been made in this paper to give the essential facts in what have been regarded as the more significant phases of the school's work, namely: the courses of study; guidance in the selection of these courses; distribution of pupils in the different courses; subject group departmentalizing, with the corresponding subject group promotion and its advantages in reducing the number of failure pupils; the power

of the school in reducing the number of eliminations and the consequent holding of pupils for at least one year of high school work; the significance of the differentiated courses in their bearing on the overage problem; the wisdom of selecting the strong, experienced grade teachers for the junior high school and the pupil participation in school control, the conditions for which are made so favorable by the junior high school type of school organization.

Let me, however, call your attention to the statement made at the beginning that the whole discussion must be interpreted in the light of one year of experience only. Time with its changing conditions will doubtless alter many of the facts and figures.

To those of us who are familiar with the intimate working of the school, however, there is a deep-seated confidence that the underlying principles of this type of school administration are bound to stand the test.

#### *Reports of Results by Supervisory and Consulting Directors*

The direction, revision of courses, and supervision of school work are in the control of the director of junior high school academic work who coordinates the academic or book work of all departments and articulates the work with the contributing schools and the upper high school; four high school departmental heads from East and West High Schools who, in connection with their duties as consulting engineers, are doing actual teaching in some classes; the director of commercial education for the entire system; and one of the two assistant superintendents who serves as director of industrial and vocational departments in all schools. There are also a local director of the industrial arts and another of the household arts department. Because their points of contact have been more intimate and their knowledge of results obtained in their respective spheres of influence has been more specific, I shall quote such parts of their reports of results as have not been previously discussed.

A. P. Fletcher, director of industrial and vocational education:

The industrial and household arts departments of the junior high school are organized with the distinct purpose of holding boys and girls in school who otherwise would drop out at the end of the sixth and seventh grades to go to work. These departments furnish an opportunity to prepare for certain vocations. The household arts department offers the usual lines of work, namely, plain sewing, dressmaking, millinery, buttonhole making and cooking. The industrial arts department offers the following lines of work: cabinet making (mill work), cabinet making (assembling), pattern making, sheet metal work, elementary machine work, printing, automobile repair and maintenance work, electrical practice, painting and decorating, and plumbing. Each of these shops is in charge of a master craftsman. During the seventh and eighth grades the boy has an opportunity to try out six shops and in the ninth year to specialize in the shop in which he has shown the most aptitude. The apprentice agreements enable the boys to enter employment with an advanced initial wage and with definite prospects of advancement.

Experience has shown not only do these practical subjects with the correlated book work hold boys in school who would otherwise drop out, but in many cases the pupils discover their need for higher education and go to senior high school work.

H. A. Carpenter, head of the science department, West High School:

*The relation of the seventh grade elementary science to the ninth grade general science*

When pupils enter the ninth grade general science they have already acquired in the seventh grade elementary science course:

- 1 A scientific attitude of mind toward problems of everyday occurrence.
- 2 A new-born respect for the commonplace things of nature.
- 3 A considerable fund of accurate information of scientific character, based upon personal but directed observation. This information finds immediate use and application in their attack of the ninth year problems.
- 4 A certain amount of training in the laboratory method and procedure.
- 5 The beginning of a hobby which, properly nourished, may develop into expertness.
- 6 A love and appreciation for nature and science.
- 7 A training in thoroughness that involves character building.

William Betz, head of the mathematics department, East High School:

MATHEMATICS IN THE JUNIOR HIGH SCHOOL

*Eighth year—first term:*

The work was limited to arithmetic and geometry. From 40 to 45 minutes were given each working school day to geometry, and from 15 to 30 minutes to arithmetic. The work in geometry corresponded to the preliminary course given in the second year of the upper high schools, plus additional work in areas, in designing and surveying. In arithmetic the prescribed topics were completed and mensuration formulas were begun. The laboratory plan was followed exclusively. No textbook was used. No outside study was required.

*Results:* The children seemed to enjoy the work. The response was good and the results obtained seemed to be thoroughly assimilated.

*Eighth year—second term:*

Arithmetic was continued and algebra begun, the time allowance being the same as in the eighth B. Geometry was correlated with algebra, but was not continued as an independent subject. In arithmetic the mensuration formulas were continued and the prescribed topics were completed in so far as they were not covered by the geometry or the algebra.

*Response:* It became apparent, throughout the term, that the slow approach to algebra, in the concrete setting given it, made the entire subject far more significant and intelligible.

*Ninth year:*

Pupils who had been promoted into the ninth year found themselves in possession, at the beginning of the usual high school period, of much valuable knowledge, acquired in a much more natural, spontaneous and interesting way. The totality of this training represents a tremendously valuable gain over the old plan. The effect of this preliminary start is expected to show itself throughout the entire high school course of these pupils.

*Present indications of success:* During the first week (September 1916), pupils easily did work in algebra which ordinarily is not attempted before the seventh week or later. This is a very conservative statement which could easily be magnified in favor of the junior high school plan. It also appeared that the fundamental processes, owing to their longer period of assimilation, had become much more firmly implanted than is ordinarily the case.

M. D. Gray, head of ancient language department, East High School:

The work in the eighth grade has aimed to secure the following results:

1 By slow and gradual steps the effort has been made to teach the pupils from the very start in the mastery of every element of Latin, consistent, permanent and conscious methods which shall express themselves in habits of study as well as in the methods of teaching. Pupils are instructed with the utmost care how to study their vocabulary, how to study inflections, how to study syntax, how to attack a Latin sentence, and how to translate from English into Latin.

2 In the syntax work the closest coordination between English syntax has been made with the purpose of developing in the minds of the pupils general syntax principles valid equally in Latin and English and in any other language studied thereafter. Identification of the syntax of the two languages is the aim.

3 The closest contact with environment is maintained from the very first day when the pupil is instructed to search newspapers etc. for the numerous words, phrases etc., found there. This contact with environment is maintained every day throughout the course, and the study of derivatives becomes a fundamental element in the work.

The following important gains may be noted:

1 At the end of the first month in the first-year book the pupils have progressed as far as they previously did in the first three months. Most of the work is, of course, review in a slightly different form from that in which they first covered the ground. Methods of study are already familiar to the pupil and the time previously devoted to this in the first year of high school is therefore saved at once.

2 In the English classes also there is a great saving. The work previously done in the first few weeks of our English classes in reorganizing their English grammar on the universal basis is saved in toto.

Frederick Betz, head of the department of modern languages, East High School:

The amount of work covered so far in German, as compared with the work done in the first year in the high schools, is as follows:

8B covers one-third of first term's work in high school

8A covers one-third of first term's work in high school

9B covers about one-third of the first term's work plus a small part of the second term's work. The work is begun by exercises in pronunciation.

This has so far taken up more time than in high school because of the greater immaturity of the pupils and the apparently defective aural and oral reaction on the part of a number of pupils. This work is followed by very simple exercises consisting of connected sentences. These exercises are acted out as far as possible by the teacher and the pupils. The attempt is made to convey the meaning of German words and sentences directly, without recourse to translation. After the lesson has been taken up orally for about two periods the pupils are given a printed sheet containing the lesson, some grammatical exercises, vocabularies, rules etc. The pupils are to memorize the lessons, thereby acquiring a small but definite vocabulary of common German words. Grammatical rules are of necessity put far into the background and technical language is used as little as possible.

### C. E. Finch, director of junior high school academic work:

1 Our first year of work has given us the opportunity to try the following desirable experiments:

*a* Relating current events to both history and civics.

*b* A new plan for the study of history that requires the skill of the departmental teacher.

*c* A new plan for the study of geography that gives a better foundation for commercial and industrial courses, and meets the approval of high school instructors who deal with this subject later on.

*d* A plan for spelling that includes the results of the latest investigations along this line and provides for very definite word study that includes enunciation, pronunciation and various phases of dictionary drill.

2 Articulation with the high school.

A closer relation to the high school has resulted from conferences with heads of departments in the high school and with high school teachers. These conferences have offered unusual opportunities for an exchange of views, for a clearer understanding of mutual problems and the partial establishment of the following standards:

*a* Literature

- (1) To be read in grammar schools
- (2) Not to be read in grammar schools

*b* English notebooks

- (1) Kind of notebook
- (2) Method of keeping it
- (3) Theme plans

*c Standards in arithmetic*

- (1) Certain uniform methods as, for example, teaching of addition of fractions, of division of decimals, or interest
- (2) Definite points to be accented
- (3) Kind and variety of drill work

*d An outline for commercial arithmetic in the high schools that bears a definite relation to the work done in the junior high school has been made.*

*3 Articulation with the elementary school.*

The following steps have been taken by way of establishing desirable articulation between the elementary schools leading to the junior high school and the junior high school itself.

*a Meetings of the teachers from the several contributing schools for the purpose of discussing mutual problems have resulted in the development of new points of view, particularly in grammar and arithmetic.*

*b Tests applied in the junior high school have definitely affected the work in the contributing schools.*

*c The need for certain revisions in the course of study for the elementary schools is already apparent as one of the results of the work now being done in the junior high school.*

*4 Greater possibilities for progress.*

Results in the second year's work at the junior high school that have followed changes in the course of study and the advantages of departmental teaching.

*a The work in current events has resulted in increased power to discriminate, in vitalizing history and civics, and in broadening the interests of the pupils.*

*b Some desirable points of uniformity in methods of dealing with certain subjects have been developed; for example, standard methods in arithmetic, uniform correction marks for composition work, a definite method of approach in teaching technical grammar.*

*c A particular improvement is noted in ability in arithmetic of pupils who have entered the commercial department from our academic department over those who entered the same department a year ago from the grammar schools; for example, the results of a test given to a former class and repeated this year show no failures this year against four failures last year with nearly three times as many "excellents" as last year.*

*d The preparation for the commercial work in geography is noticeably better than that of the classes coming from the grammar schools a year ago.*

*e The gain made by classes now beginning their second year is more apparent than in classes beginning the third year.*

*5 Attitude of the pupils.*

The first year of work at the junior high school has made a noticeable impression on the general attitude of the pupils toward their work, and has furnished good evidence of the development of self-reliance.

a The pupils have made definite progress in their ability to work independently.

b There has been a marked decrease in the number of useless questions formerly asked when a lesson was assigned or directions given.

c The quiet, businesslike manner in which classes now take up their work on entering the classroom, especially when the teacher is unable to give them immediate attention, is most encouraging.

CHARLES F. WHEELOCK: I am sure that all of us who heard Superintendent Weet last year in what was then considered a prophecy are grateful to know that it has become, to the extent of one year's work at least, history. Most of you remember that about two or three years ago the Green mountains were shaken to their base by a report of a school survey. I do not know definitely what has happened to the Green mountains since then, but I understand they are quieting down and getting settled again. We have with us today Mr Clyde M. Hill, who is the supervisor of junior high schools in the state of Vermont, whom I am glad to present at this time.

## THE JUNIOR HIGH SCHOOL IN VERMONT

CLYDE M. HILL

*Supervisor of Junior High Schools for the State of Vermont*

In 1915 the legislature of the state of Vermont authorized the establishment of junior high schools and appropriated \$5000 a year for the biennial period to assist such schools. This step was one in the general policy of making every effort to improve instruction, particularly in the village and rural communities of the state. The appropriation was intended by the legislators as a mere beginning. It was their wish to give the schools a trial and if they proved successful to make a more substantial fund available. The state board and commissioner of education made plans for the establishment of these schools with great deliberation. It seemed best as a beginning to establish only a

few in representative communities and to give them much attention "in order that the experience gained in their establishment and conduct might be made available for other communities later." To this end it was decided to establish seven or eight schools this year in communities where the sentiment strongly favored the reorganization of the upper grade work and whose boards of directors were willing to make such provision in the way of building, equipment and teachers as would meet the approval of the commissioner.

When local boards of directors made application for the establishment of a junior high school in their district the commissioner of education visited the school, made a survey of the situation and advised the authorities concerning the changes which would be necessary to meet the conditions of approval by the state. In each case there were to be at least three teachers, one of whom must be a man prepared to teach agriculture and another a woman who could teach home economics. The state agreed to pay \$500 toward the salaries of these teachers. Laboratories for agriculture and related shop work were to be provided. Bright, cheerful kitchens, located on the same floor with the assembly room, and if possible connecting with it, were demanded. There was to be an assembly room large enough to accommodate all the pupils, library facilities and, in short, everything which could reasonably be demanded of these communities to contribute to the successful operation of the schools. Our commissioner had the good judgment to impress upon the communities desiring the junior high school that it would involve much work and the heartiest cooperation on the part of directors, teachers, pupils and patrons. As a result we now have in operation in Vermont eleven junior high schools taught by enthusiastic young men and women, attended by interested, ambitious boys and girls, administered by liberal, earnest boards of directors and supported in every way by progressive, loyal communities.

As a next step in the plan of organization, Commissioner Hillegas called together a group of schoolmen from all parts of

the state. The membership of this committee consisted of representatives from the state university, the various colleges and normal schools, and the district superintendents, with the commissioner as chairman. The plan was to discuss the basic principles of the course of study for junior high schools. After the general plans were formulated and discussed, individuals were asked to prepare the course of study in special subjects. At the following meeting each member submitted his general plan with the underlying principles, and these plans were freely discussed and modified until they were accepted by the entire committee. At subsequent meetings the completed courses were presented and worked over by the entire group in a most thoroughgoing manner. This preliminary work completed, the junior high school teachers were called together at the expense of the state for a two-day institute, and the various lines of work were presented to them.

With two exceptions, the buildings which are being used for junior high schools were not built for that purpose. Each one, however, has been remodeled to meet the demands of the new school. Much skill and ingenuity have been shown in this work and it is the writer's opinion that Vermont has something to contribute at the present time which will be of interest to schoolmen confronted with the proposition of housing a new school in a building planned for an old school. It is interesting to note that the cost of remodeling has seldom exceeded \$100 and that practically all the work has been done by the boys of the school.

In one case the upper floor of the building had been used as a town hall and community theater. In this capacity it had served a most useful purpose as a community center and the people were justly loath to part with it. A plan was submitted from the commissioner's office whereby it was possible for local carpenters to provide at small cost a stage which can be slipped up into the attic when not in use. They have provided ingenious hinged, light, sound-proof walls which can be swung back when not needed. As a result, for 180 days in the year the space formerly occupied by the stage is a modern, well-equipped,

sanitary school kitchen on one side and a delightful classroom on the other, while the assembly room with its movable tables and chairs is admirably adapted to study hall and assembly purposes. The various social organizations in the village are delighted to find that they have a large hall in which to hold their community meetings and when they wish to serve a dinner they have a complete kitchen adjacent to the dining hall. Furthermore, the budding Booths and Bernhardts are afforded the opportunities which every community is under obligation to supply in order that they may display and develop their talents.

Of the 55 junior high school teachers now working in the state, 43 are young, vigorous college graduates with limited experience in upper grade or high school teaching. With a few exceptions they have had professional training. They are alive to the aims and purposes of the junior high school and are most earnest in their desire to make the schools succeed, or at least to give them a fair trial. It was the ambition of Commissioner Hillegas to secure young men and women who were well trained along academic and professional lines and who had had sufficient experience in teaching to insure good judgment and ability in handling children but who were not so fixed in their habits of teaching that they could not make new departures. In the forty-three cases this end has undoubtedly been accomplished. A majority of the twelve remaining junior high school teachers are successful grade teachers of several years' experience and are working in various capacities for which their training fits them. In some instances they are handling regular lines of work in a most gratifying manner. More frequently they teach such subjects as drawing, writing and music, for which they are especially prepared. In one instance a former successful grade teacher is carrying three courses in the junior high school and spends the remainder of her time in supervising the grade work. We are making every effort to tie the two schools together. We feel it is most essential to the success of both schools that the grade teachers know of the work and plans of the junior high school and that the junior high school teachers be kept in

vital touch and in sympathy with the grade work. In some schools the home economics teacher gives instruction in sewing in the grades while a grade teacher directs the music or drawing in the junior high school. We find frequent opportunity to invite the pupils of the fifth and sixth grades to the junior high school assemblies and on such occasions the programs are planned to make a strong appeal to the visitors. Occasionally when the nature of the work is such as to stimulate their interest and to be of real value to them, the sixth grade boys are permitted to go on an agriculture field trip with the junior high school boys.

I know of no better way to present our general aim than to quote from the address delivered by Dr M. B. Hillegas, commissioner of education, at a recent meeting of the Vermont State Teachers Association. He said, "The organization within these schools is sufficiently flexible to meet the needs of individual communities. If boys and girls must leave school in order to become wage-earners it is essential that we provide work such as to avoid their feeling in later life that they wasted even the time they did spend in school. In the rural communities much of the boys' work will hinge about agriculture. The girls in their turn will deal with the affairs of the household. Students within these schools will receive no less instruction in arithmetic, in English and in sciences. They will, however, study with some purpose and thus they will better understand the significance of the subjects taught. In these schools the way must be kept open for those who will eventually go to college but we must not close our eyes to the fact that many will never reach such institutions and they too are entitled to the best the state can offer."

In this paper I shall not refer to the fundamental principles upon which the junior high school is based but I shall confine myself to the way we are attempting to apply these principles in Vermont. It will not be worth while to discuss the plan of organization and the courses in detail but it will be necessary to touch upon certain features in order to make clear our problems and the way we are trying to solve them.

With one or two exceptions our junior high schools are located in rural communities at a distance of several miles from a senior high school. It was at once agreed that the most desirable plan for us was the four-two plan. In every case it meant one additional year of schooling for the boys and girls while they remained in their own homes. We felt that there was sufficient force in the argument of the need at this time of the home for the boy and girl and the need of the boy and girl for the home to justify us in departing from the more or less ideal three-three plan.

All the pupils meet together and the classes are referred to as first, second, third and fourth year classes. The first and second year pupils enter into the general activities of the school as much as do the older pupils. The study halls are provided with tables and chairs and no effort is made to seat the pupils so that the younger ones are set apart from the older ones. Indeed everything is done to prevent class accentuation and to make the younger boys and girls feel that they are vitally essential to the general well-being of the school.

We recognize the advantages of departmental teaching but we are also conscious of the fact that it is attended by certain dangers. In order to provide for the controlling personal influence of a single teacher, and at the same time to require the individual teacher to be informed about the affairs of the entire school instead of simply her own work, we have divided the pupils into sponsor groups. In making this division we have invariably avoided permitting the ones and twos, as such, to form a group. In some instances the pupils have as their sponsor the first teacher to whom they report in the morning. In other cases the boys are assigned to the men while the girls are assigned to the women.

The assemblies are usually held in the middle of the morning. In some schools they are controlled almost entirely by the pupils. They provide for three distinct lines of work — devotional exercises, instruction and entertainment. People in the community

who have a real message for the pupils are invited to the assembly and permitted to discuss the subjects in which they are interested. In every case we safeguard the interests of the pupils against spending time in listening to one who merely wishes us to provide an audience. The speaker must have something real and vital to give to the pupils. One of the most interesting talks I have heard recently was by a man past seventy years of age who has been most successful in growing alfalfa in Vermont. In twenty minutes he gave the boys and girls more information on this subject than they could have obtained from their texts in half as many hours. It impressed them because it was first hand and a live question in the community. In another instance a local banker discussed "Currency and Legal Tender" in a most effective manner. We feel that it is to the interest of the school and the community to get the citizens into the school and to get the teachers into various community affairs. It is our ambition to make these schools community schools in every sense. Practically all of our teachers belong to the grange and other local organizations. The principals are most active in community affairs, particularly those which pertain to farming. Principal Brailey of Concord has recently been elected president of the Concord Milk Producers Association.

The schools have purchased victrolas and the State Department of Education furnishes sets of suitable records to be circulated among the various schools.

The courses in home economics and agriculture are planned to correlate closely with community interests of the moment. The cooking class in Plainfield found that corn and tomatoes were available in the school garden. Therefore, instead of beginning with water as a carrier of flavors, they had their first lessons on canning in order to preserve the corn and tomatoes for use in school lunches this winter. In another school the first work was the making of crabapple jelly and in cases where the mothers had trouble with their jelly in the home the pupils were delighted to explain to them why their results were not satisfactory. Mrs X in Essex Junction has the reputation of making

very superior doughnuts. The home economics teacher has arranged to take her class to Mrs X's kitchen where Mrs X will instruct them in the art.

Many of the pupils in each junior high school bring their lunches. The daily schedule of classes in each school is so arranged as to provide for a cooking class just before noon. These classes will prepare at least one hot dish each day for the lunches during the winter months. In some sections the pupils pay for this service a price ranging from five to fifteen cents a week. Frequently the vegetables are furnished by the pupils and the food is prepared and served free of charge. In one school the Mothers' Club has been subdivided into committees, each of which cooperates with the cooking class in preparing the food. Each committee furnishes everything needed during the week in which it is on duty.

The teachers are planning to give much attention to the canning and preserving of meats, an important question to Vermont farmers.

The domestic science teachers are giving courses to the matrons in their communities in various lines of work. In a few instances these ladies are enrolled in the regular class with the advanced girls.

In a similar way it is our hope to keep the agriculture work on the school grounds as much as possible. The boys in each school are building hot beds and cold frames to be used for raising plants for community needs and a stock company has been organized for the management of the business involved. Instead of beginning the course at Highgate with soil chemistry, they began with the study of harvesting potatoes because that was the order of the day in the community. After discussing the question and getting as much information as was available in the various books and pamphlets at their disposal the pupils were taken by their teacher to a neighboring farm where they harvested the potato crop. They got their hands dirty and

received fifteen cents an hour for their work. Numerous questions arose which provided classroom and laboratory material for several days. The farmer became interested in their questions regarding his crop and asked permission to attend the class during the discussions. Apple picking, ensilage and filling silos have furnished similar approaches in other communities. The mathematics and agriculture in one school are being given in connection with tile draining a neighbor's field in which all the pupils are spending an hour and a half a day at fifteen cents an hour. The work is being rushed so that the field may be put in condition for fall plowing. The shop work is of an extremely practical nature. The boys have done all the work necessary to provide quarters for their agriculture laboratories. They make repairs needed at home and at school. They build gates and make whiffletrees and eveners, feed troughs, saw bucks, and the like.

In schools where general science is not given, the introductory agriculture course is largely general science with a basis in agriculture. One class is installing a hydraulic ram in order to provide running water for the kitchen and laboratory. We have found that since the boys have learned to use pipe wrenches and thread cutters they are becoming interested in doing plumbing work at home. Two of the boys are now engaged in piping water from a hillside spring to their homes. In practically every school the boys have built tables and cupboards for the agriculture and home economics laboratories.

In North Troy the home economics work is housed in a building adjoining the school and occupies the entire first floor, a room 28 by 40 feet. The girls are now planning a model apartment. The boys are to build the partitions and do the plumbing and the girls are to do the decorating and furnishing. The women in the community are much interested in the project and the apartment bids fair to become a real community center.

In Hinesburg much of the manual training work will center around the remodeling of an old school building so that it can

be occupied as a home by the principal. Such work provides material for many other courses. It provides real problems in mathematics. Letters are written by the pupils requesting bulletins and seeking information concerning finishes, supplies etc. The most effective kind of composition work grows out of their efforts to get before the class their plans for carrying out the various projects.

We are giving no credit for home work in the ordinary sense. Our principals are employed for eleven months of the year and it is therefore easy to plan and carry out home projects under the direction of the teacher. Our system of excess and diminished credit makes it easily possible to give credit for such projects. The plan also helps to take care of individual differences. The school year is divided into semesters; 160 points are required for graduation. By a point is meant the pursuit of a subject which recites once a week throughout the semester, subjects requiring no outside preparation being allowed only half credit. The median group is marked M and given the credit the course carries with it. For example, if the English class meets four times a week a pupil making a grade of M in the course receives four points toward graduation. If the quantity and quality of his work warrant it he is given a grade of superior (S) or excellent (E) and is given excess credit to the extent of 15 and 25 per cent respectively. His work may be such that he will receive a grade of inferior (I) or poor (P), in which case his credit will be diminished by 15 and 25 per cent respectively. If his work is so unsatisfactory that it does not entitle him to a grade of P he may be required to repeat the course.

We have but one junior high school located in a city community—that in the city of Burlington. This was organized some years ago in an effort to increase the number of pupils enrolled in high school work by providing for greater flexibility in their courses. A study of retardation in the grammar school revealed the fact that the average age of the children in the ninth

grade was 15 and 16. Corresponding conditions prevailed in the eighth grade. The situation seemed to demand heroic treatment and the junior high school plan was adopted as it seemed to afford the best means of changing in a minimum time to a normal condition. The special needs of each child are considered and children of like capacities are brought together. In each grade there are from six to eight groups of about thirty children. All children of 15 and 16 years in grades 1 to 6 are taken to the junior high school, regardless of their grade or scholarship, and are given the work they need. This is a benefit to these children as they have more self-respect when among children of the same physiological age and they do better work because they are no longer discouraged. It is also of benefit to the lower grades as it removes adolescent children from the smaller ones and lessens the drag upon the class.

The courses offered in the different schools vary greatly according to community needs and the future plans of the pupils. In some schools no foreign language is taught. In others two are offered. In some schools four years of mathematics are required; in others both algebra and geometry are elective.

While we are most liberal in planning the work to suit community needs, in all cases we are very careful not to close the way to college if at any time in his secondary course the pupil decides to make such preparation. The work is so planned that any pupil completing a junior high school course will have enough college entrance credits to enable him to meet the additional requirements in the last two years of the neighboring senior high school. Some adjustments in the senior high school courses have been necessary to make this possible.

We are maintaining high standards of work in our schools but we are making no effort to standardize these schools in the sense that we shall offer the same courses in all of them. In one instance we are planning to take care of a class of overage, French-Canadian boys and girls from the lower grades in several neighboring schools. In another village we found eight or

ten girls who had two years of work in the old high school and desired to do more but could not leave home. We found that by offering one extra course we can care for them for an additional year. We are ambitious to continue these schools so as to maintain the sort of flexibility that will permit us to do what our hands find to do.

It may be of interest to speak of my connection with these schools as junior high school supervisor. The thing that is most forcibly impressed upon all the teachers and pupils is that my duties are those of a helpful coworker rather than those of an inspector. I feel as interested in these schools and as responsible for their success as do the principals themselves. It is my business not merely to point out what is wrong but to correct it. I have spent two days in each of these schools trying to get them started in the way they should go and during these brief visits I have looked after points of administration rather more than instruction. I am now starting on my second visit, spending a week or more in each school. I get acquainted with the community and study conditions generally. I am actually teaching classes every day in order to get before the teachers my ideas of the methods of handling the work. All our teachers make mistakes but there is no effort to hide them and we are all working in the open and together in the interest of education in Vermont.

We are not attempting to do anything pretentious or spectacular. We are simply trying to develop a type of school suited to our needs which will give every boy and girl in the state a square deal in the truest and biggest sense. From the standpoint of one who is spending his entire time in these schools and who is vitally interested in their success I can truthfully say that I have yet to find the first discouraging moment in the work.

It is my impression that Vermont is attacking the whole problem of education in a most sensible manner. It will be interesting not only for those who are working within the state but for outsiders as well to watch the developments at every stage.

## THE JUNIOR HIGH SCHOOL

### REPORTS FROM THE FIELD

PRINCIPAL J. MURRAY FOSTER: The Dansville Junior High School, based on the six-two-four plan, is the product of a very conservative growth, which began in the autumn of 1912 and which is not yet completed. The first step was the departmentalization of the seventh and eighth grades with the pupils seated in a large study hall. The next year an attempt at supervised study was made, especially in arithmetic, in which subject the pupils were required to prepare their lessons in school under the immediate supervision of the arithmetic teacher. The second term of 1914-15, elementary courses in algebra and Latin were offered in the eighth year. There were forty periods of instruction in each. The purpose of this work was twofold: first, to introduce the pupil to the two subjects which have been causing the most trouble in the first year of high school; and second, to try out the pupil to learn if he had the ability to pursue Latin profitably in his high school course. The following year an elementary course in agriculture was established, and in the second term of the eighth year arithmetic, some very elementary bookkeeping and much commercial arithmetic were given. The purpose of this was to give every pupil some of the fundamental principles of business transactions, and to make this more real visits to the banks were made where the cashiers passed on the pupils' work. This, it was felt, would give the pupils a taste of the commercial course. This autumn an elementary course in homemaking is offered.

The results of this growth are, first, departmentalization of the seventh and eighth years; second, supervised study; third, differentiation of the work in four courses, the academic, the commercial, the agricultural and the homemaking. This differentiation is not completed, but undoubtedly will be another year. With it goes a serious attempt at vocational guidance.

One difficulty we had to overcome was that of how to adjust

the pupils who entered from the parochial and rural schools after finishing their eighth grade work. Two years ago we overcame this difficulty in a large degree by making arrangements with the pastors of the two parochial schools to have their eighth year pupils sent to our school the last three-fourths of an hour in the forenoon to receive the special work of our junior high school. At conferences of the neighboring rural school teachers which the district superintendent held in our school we explained to the teachers the situation and urged them to have their pupils come to our school for at least the eighth year. The response has been so general that but four pupils entering our senior high school this year lacked any of the junior high school work. The result of the arrangement with the parochial schools is that the wide gap between them and the senior high school has been bridged. The parochial school pupil has become used to the high school and has learned to like it; hence he continues his work in high school.

The results of the establishment of the junior high school can best be shown by statistics.

The elimination from the seventh and eighth years has been decreased 20 per cent and the enrolment has been increased 19 per cent. The number of overaged pupils has been lowered 8.2 per cent. For the four years before the parochial school pupils came for junior high school work the average number entering from those schools was 12; for the past two years it is 17, an increase of 41 per cent. The average number entering the senior high school for the last two years is 47 per cent greater than the average number entering the preceding four years. Perhaps the entire credit for this large increase does not belong to the junior high school because the senior high school commercial, agricultural and homemaking courses would have probably attracted many irrespective of the junior high school, yet very much of the credit belongs to it.

That the junior high school has not interfered with the work in the three R's is shown by the fact that the percentage of pupils who have passed the Regents preliminary examinations in the past two years is larger than that of those who passed during the

preceding three years. The work done in the first year senior high school is of a higher character today than it was before the advent of our junior high school department.

Something that can not be expressed by per cents is the fine spirit this department has developed. Our junior high school has its basketball teams which play among themselves and with the parochial schools. It has its glee clubs, orchestra and track teams. All these activities have a most wholesome effect.

One danger, however, can not be ignored. We are convinced that the success of a junior high school depends fundamentally upon the teacher. If it were not possible to have excellent teachers, the graded system would be better. Two of our strongest teachers who have had much rich and successful experience in teaching have charge of the pupils of this department for more than 60 per cent of the time.

In the beginning of this paper, I said that ours is the six-two-four plan. This is not because we think it better, but because we are practically forced to it by the issuance of the preliminary certificate. We wish that the State might help those schools in the villages and smaller cities which desire to have junior high schools of the six-three-three plan by issuing, instead of a preliminary certificate, a junior high school diploma. This diploma should require the completion of the preliminary subjects, English first year, biology, and enough elective subjects to give ten additional counts. If this were done pupils would have a higher incentive to complete nine years of work than they have now, and the best type of the junior high school would be possible in places of the size of Dansville. It is true that to issue such a diploma instead of a preliminary certificate would involve certain difficulties, particularly in granting tuition to nonresident academic pupils. But surely these might be overcome.

SUPERINTENDENT HOWARD G. BURDGE: We have in Wellsville a junior high school which was organized six years ago. We tried to organize it on the six-three-three plan but we have grown into the six-six plan. I am going to illustrate our

system concretely, but shall not attempt to give many figures. We have figures which would show conditions similar to those which Mr Foster gave and which were given from Rochester. For instance, six years ago we built for the convenience of the pupils going up our educational hall a scale of steps, six steps up or six rungs in the ladder leading up to a platform, at the end of the sixth year, and then we built a series of stairs, four stairways leading from the sixth grade up. We attempted to put some platforms in at the end of the ninth year. We finally removed those. There is one thing that I have noticed and which I think is of great importance. After the pupils began to go up the upper stairs, the cornice began to be knocked off the steps and after a while there were rough paths with many rocks in them, but they are gradually getting smooth, which I believe is the way it should be. These paths are leading gradually up the educational hill and they are getting smaller and smaller, smoother and smoother. We have four of these paths.

I have noticed another thing; while these paths are being worn chiefly, some by the girls and some by the boys, there are many by-paths leading across from one to the other. We have a great many boys in our vocational courses who are very much interested in that, but for some reason or other they want to take some one step over in the other course. Here is a boy who is very mechanical but his people want him to take a little shorthand and typewriting. There are a good many paths back and forth. At first we tried to make those paths very straight and hold them to it, but we are learning something. I have hopes now that after a little while we shall get the steps broken down below and that we can have continual, gradual runs, from the first grade on through our school system without breaks. Then I believe we shall have facts and figures to show that the girls and boys are going to stay in our schools until they are taken out through financial necessity by their parents. There will be no breaks, no chance to pause and no temptation to leave school. The stumbling blocks will be removed. There will be no such thing as pausing points but there will be a gradual ascent; the

distance from one step to the other will be equally divided as that between all other steps.

One other important thing happened; I noticed it last June. We graduated 42 from our high school of about 250 pupils. I noticed in that graduating class that all the bright pupils, all the honor pupils, had gone through our last six years in five years. Doctor Strayer and Doctor Briggs are very fond of saying that the most retarded pupil is the bright pupil. This certainly is a big step in the right direction. We did not plan that, but I discovered last June that the bright pupil can go through six years in five years when it is sometimes difficult to get through four years in three years, and the people who won scholarships and are here at the normal college are those who went through six years in five.

PRINCIPAL H. V. LITTELL: The junior high school as it exists in our system of schools is but a phase of an attempt to reorganize the whole school system, with special reference to the individual needs of the pupils and community interests. If the term junior high school had not already become an integral part of the school system and very familiar to pupils and teachers I should hesitate to use that, but designate it as the realization of the seventh and eighth grades in a single study period. The board of education would have hesitated because it has cost them money. The parents would not have approved because the term has been confusing to them, and I am sure that it has become embarrassing to me. We wished in our school system to make a closer articulation between the elementary school and the high school. We felt that at the end of the eighth year after the pupil had studied reading, writing, spelling, arithmetic and the elementary school subjects that he did not have adequate preparation even for the old-line classical courses that we offered in high school, and certainly had no preparation for earning his living in the community; and so from that has developed the introduction of courses in the seventh and eighth grades that will

better prepare the pupils for the courses in high school or for work in the community.

There are only two phases of this question, which has been discussed so admirably that I can add little or nothing to it, but I wish to bring to you something of our experience at Saranac Lake.

It seemed absolutely impossible to do the rigid preparatory work in the junior high school that we wished to do, without reorganizing to a great extent the work in the first six years of the elementary school, so that the pupils could become possessed of the tools of knowledge that would fit them to do this work effectively. Four years ago we started a reorganization of this elementary work and by a reorganization of the course of study, concentration and improvement in the methods of teaching, we have proved by physiological experiment and by tests that pupils at the end of the seventh year now can do as good and slightly better work than the pupils at the end of our eighth year did four years ago. At the end of the seventh year we believe in allowing the child to choose his course. Our differentiation begins at the end of that year. The pupil may choose in the eighth year a vocational course fitting him for work in the community; he may choose the commercial course fitting him for work in the high school; he may choose a classical course or normal entrance course.

I have been very much interested in watching the interest taken in this course. We have a course in business forms and accounts and I have never seen a more interested class. It recites twice a week. Different men in the community come into the classroom and tell the pupils about their business so that the child gets throughout the year a good survey of at least forty different occupations which might help him to select his business in life. We also have a course in community civics, which is an experiment with us, but I believe it is really teaching a knowledge of government.

We also have courses in elementary arithmetic that bridge the

gap between arithmetic and algebra. We have courses in elementary French and German entirely along conversational lines, and also courses in Latin. None of these courses, however, are designed to shorten the length of the high school course.

For example, we believe that the child at the end of the seventh year, and of course it is often true at an earlier period, can learn a language, conversational French or conversational German, very much more easily than at a later date. If that difficulty is overcome it gives us time in the high school really to teach something of French and German, more of the literature, because it gives the pupils a chance to become better acquainted with the people whose language they are hearing; so we have found that the junior high school on the sixth, seventh or eighth grade plan, especially our eighth grade preparation for high school, has materially strengthened work in high school, has greatly increased registration, and has tended to keep boys in the senior high school and in the junior high school.

PRINCIPAL W. FLOYD HARRIS: It is not fitting for me to spend any time in discussing the junior high school from a theoretical standpoint. I can only hope to justify my presence on the program by telling you what we are doing in Ellenville, what some of our problems have been, and something worth while that we seem to have accomplished.

First you should have the setting and should know the size of our system. Ellenville has a population of between three and four thousand. We do some manufacturing but the bulk of our income is derived directly or indirectly from the summer residents who throng the foothills of the Catskills on one side of us or the Shawangunk mountains on the other side. Last year we registered 457 pupils in the six grades, 229 pupils in the junior high school, and 105 in the senior high school, a total of 791. Of the high school pupils, 112 were nonresidents from the surrounding country where the people are engaged in the combined occupation of farming and keeping summer boarders. The high school work is taken care of by 13 teachers, two of whom, the

music and drawing supervisor and the physical training director, give only part of their time to high school work. We adopted the six-three-three plan, or the six-six plan you may prefer to call it, two years ago this fall. I shall tell you what we are doing and you may call it what you please. Allow me to say, however, that in the future I hope to emphasize a *little* more than we have in the past the three-three division.

We do not have the three distinct courses that are commonly associated with the junior high school idea. We have certain work required of all pupils and we then have electives along the three different lines. During the seventh, eighth and ninth years we require the usual work in history, arithmetic, spelling, English, biology, and also algebra for all who expect to complete the senior high school course. In addition, we require one term of commercial arithmetic, some music and drawing. We require each pupil to become a good muscular movement penman, and we require hygiene twice a week during the seventh and eighth years; this work includes among other things courses in communicable diseases, emergencies, and community hygiene. In connection with the English of the ninth year, English 1, we give one day a week during one term to business letter writing. For electives we offer German, allowing it to be started in either the seventh, eighth or ninth year, Latin in the ninth year, and algebra beginning with the second half of the eighth year. We offer a second term of commercial arithmetic, commercial geography, bookkeeping and business writing. And on the so-called vocational side we offer agriculture and homemaking.

Last year during one term I personally met once a week the pupils who were taking English 1 and attempted to teach them something about how to study. I do not consider that it was the ideal time in the course to give this work, but it was an experiment and I put it in where I could best handle it. I believe that the experiment justified itself. Before the end of the year some of our junior high school teachers asked me if I would not give the course to the pupils in the first year of the junior high school, and I am hoping to do that some time this year.

The teaching is departmental, and there is an overlapping of teachers from subacademic work to academic work, and from junior high school work to senior high school work, so the pupils find no distinct break as they pass along. Promotion is entirely by subjects, and takes place twice a year in most of the seventh and eighth year work. When pupils come from the sixth grade they go to two small study rooms seating 45 each, the girls in one, the boys in the other. They stay here about one year and are then crowded on into the large general study hall. I should prefer to continue the small study hall plan through the entire junior high school but with us this is impossible.

One of our difficult problems was the making of a satisfactory class schedule, but that has now been solved. Larger schools would not have so much trouble in this respect.

There is another problem, however, that has not yet been solved to my entire satisfaction. It seems to be more difficult to make slow or indolent pupils keep their work up in all branches when they recite to several teachers than when they recite to one teacher only and sit in her room. I have tried to hold the teachers in charge of the small study halls responsible in a general way for all the work of their pupils. Once a month the teacher gets a card for each pupil in her room who has been deficient in scholarship, and she is supposed to have a "heart-to-heart" talk with each of these pupils. For the same kind of supervisory work, the teachers are assigned to different groups of pupils in the large study hall. But I have found difficulty in getting the teachers to shoulder this responsibility in a thoroughly satisfactory manner. It is a phase of the same old trouble of specialists not getting the proper perspective; the subject looms up too big in proportion to the pupil. But I think we are improving.

As to the benefits which we have derived from the change to the junior high school plan: With us three facts have complicated the situation so that conclusive data along any line are almost impossible. We made the change two years ago. Just two years ago the compulsory attendance law changed so that no pupil could leave school on a school record certificate till he

had completed the sixth grade. Two years ago we moved from disgraceful old buildings into a new building. Up to two years ago the seventh and eighth year work had been in the hands of thoroughly experienced teachers. Since the change a third or more of the work has been done all the time by inexperienced teachers. So much for complicating and somewhat conflicting causes.

I know of a few individual pupils who are clearly saving time because of our present organization, but there is no evidence to show that our pupils in general are completing their preliminary Regents examinations any more rapidly than under the old plan. Personally I feel very sure that when they do complete the so-called elementary work they are better trained pupils, but I have no statistics with which to substantiate that belief.

I am sure that our work as now carried on is more interesting to the pupils, that fewer of them get discouraged, and therefore that we are holding our pupils in school longer. The following facts seem to support that belief: Last year we registered 30 per cent more resident seventh and eighth year pupils than we registered during the last year of our old system, in spite of the fact that the number of pupils of school age in our district had decreased slightly more than 10 per cent. How much of the increased attendance was due to causes other than the junior high school it is, of course, impossible to say. During the last two years that we had the grade system we lost exactly  $66\frac{2}{3}$  per cent more seventh and eighth year pupils, in proportion to the number that we had, through the issuing of school record certificates, than we have lost in the same way during the past two years. The attractiveness of our new building would, of course, tend to decrease the loss, but this is largely offset by the fact that during these last two years no pupil has been able to get a school record certificate until he was promoted to the junior high school, while previously much of this loss was charged to the sixth grade.

My belief that the work is now more interesting is supported also by the statements of the pupils. Monday morning of this week I asked all the subacademic pupils in our high school and

all the more advanced pupils who had spent at least one year as subacademic pupils in our junior high school to answer the following questions: "Which plan do you like better for the seventh and eighth years, the present junior high school plan or the former plan under which we had a seventh grade and an eighth grade? Why?" Ninety per cent preferred the junior high school plan, and of these, 40 per cent gave as their first reason the advantages to be secured from promotion by subjects. Two other reasons stood out prominently among the answers: the opportunities offered by the electives, and the fact that the work was pleasanter when there was a change of teachers from period to period. I think it is clear that the change has decreased our mortality in the seventh and eighth years.

In conclusion let me say that although we can not yet point with certainty to any very remarkable benefits that have come to us as a result of our change in organization, yet not one of us — faculty or board of education — would consider for a moment going back to the old grade plan.

CHARLES F. WHEELOCK: In these brief reports from the field we certainly have gained a point of view of this subject that to me is entirely unique. I feel that we have had the most complete and most satisfactory discussion of the junior high school problem that I have as yet listened to, and I have heard many of them in the past ten or twelve years. I think we can all go away feeling that it has been worth while.

## FOURTH SESSION

October 20, 1916, 2.30 p. m.

VICE CHANCELLOR VANDERVEER: The Convocation will please come to order.

There have been a few changes in the program for this afternoon with which Doctor Finley is conversant, and he will take charge of the program.

PRESIDENT FINLEY: I am called upon again to fill a gap. I have great regret in announcing that Dr Henry M. Leipziger, on account of illness, will not be here. I had a letter from him only this morning. He is not able to be here, but fortunately we have at hand abundant talent, and I shall not undertake to make any preliminary remarks other than to identify the speaker — the principal of the Brockport Normal School, the president of the State Teachers Association, Mr Alfred C. Thompson, who without any preparation whatever beyond his ordinary supply, is going to speak upon the subject of the "pictured word."

### THE PICTURED WORD

ALFRED C. THOMPSON

*Principal of the Brockport State Normal School*

I am very glad indeed that our President explained to you that I was pressed into service at the eleventh hour, so that I may be spared making an apology. From experience I have found that there is no surer way of displeasing an audience than to make an apology at the beginning.

Many years ago there lived in Athens a painter of great renown named Apelles, who once painted upon his canvas a horse so lifelike that the steed which carried the mighty Alexander neighed when he saw the picture. Apelles came by his great skill, his biographer tells us, in this wise: He believed

that one could learn something valuable from everybody, even the humblest, provided one sought information from him pertaining to his own calling, whether that of butcher, baker or candlestick maker. Accordingly, Apelles was wont, whenever he finished any of his great masterpieces, to expose the canvas to public view, concealing himself where he could easily hear the comments made by those who looked at his pictured word. Once when he had finished his greatest masterpiece, agreeable to his custom, he had the picture displayed in his window, hiding himself behind the canvas where he could hear the comments and observe the effect of the pictured word upon those who chanced to pass that way. A cobbler soon came and quite naturally the shoemaker's closest scrutiny was quickly directed toward the footgear of the figure. Suddenly he cried out: "Why, the fellow doesn't know the first thing about sandals! He has painted two holes too few on each foot for the lachet strings to go through." Apelles immediately investigated the matter of sandals, found that the shoemaker was correct, and painted in two additional holes to each foot. The next day the cobbler came around again, and upon noting the changed sandals was very much puffed up by the result of his higher criticism, and proceeded to suggest further amendments in pose, in drapery and coloring of the figure. This was more than Apelles could stand; having gladly accepted criticism from the cobbler about wrongly painted sandals, he declined any further criticism from him with an angry exclamation which has long since become a proverb: "Let the cobbler stick to his last."

I relate this old Greek tradition not so much for the proverb as to give the ancient estimation of the power of the pictured word to arouse thought and control action.

We heard from this rostrum yesterday that imagination rules the world. This needs no proof. We feel that it is true. Imagination does rule the world. Imagination is the twin sister of invention. No great or good thing ever came to this world, nothing entirely new ever came to us, except as a product of the imagination. The product of the imagination is ideals, and if

the pictured word or the material that stimulates imagination is of the right sort, then it leads to the highest and noblest ideal — God. But if the pictured word and the material that stimulates imagination is of the wrong sort, it leads to that opposite and lowest ideal.

Certainly imagination rules the world, and the pictured word is most potent in furnishing the material that stimulates imagination. Just as the color of the chameleon changes with the color of the objects about it, so is a child's character acted upon by its environment. To surround a child with the best there is in art and sculpture, the treasures of the ages, is to exert a very powerful influence over that child in helping him to elevate his ideals and standards of excellence in attainment. It is a tremendous and overpowering influence.

A suggestion — one suggestion from the pictured word — will start a thousand impulses toward conduct, right or wrong, dependent upon the pictured word. A concrete illustration comes to my mind which was given to me by my father. It relates to a family in which there were seven sons. This family lived in the Middle West more than a thousand miles from the sea. No member of that family had ever seen the ocean. When the oldest son attained the age of eighteen he ran away from home and soon the fond mother received a letter from the boy saying that he was at sea in a ship. It was in the days of sailing ships. When the next son was eighteen he too ran away and went to sea, and this was repeated in the case of each of the sons. Finally when the seventh and the youngest son left his home for the sea, the poor mother's heart was broken.

It happened that she knew the schoolmaster well and had on other occasions poured out her troubles to him. What a splendid thing it would be if there could be that fond and sympathetic relation between the home and the schoolmaster that obtained in this instance. The mother called in the schoolmaster and unburdened her sorrow to him, and asked him if he could tell why her boys had left their home, where they were loved so much, for the sea. The schoolmaster asked to go about the house. He

went to the boys' rooms and found there no evidence of the feminine solicitude for orderliness which so completely thwarts all the natural impulses of a boy. There was the proper provision for boy treasures free from the disturbing influence of brush and broom. In the attic were the workshop and tools, and all about was the evidence of loving care and regard for boy nature. But in spite of all this the boys had run away to sea. As they sat in the large room after dinner before a great open fireplace, the master's eye fell upon a beautiful picture hanging above the mantel, a work of art of one of the great masters. This one fine picture of that home was an heirloom. On that canvas was painted a ship under full sail on a boisterous sea. In that room these boys had been born and raised. The point, my friends, is this: the pictured word of the mysteries and perils of the deep on that canvas had more influence in arousing thought, controlling action and settling the destiny of those boys than mother love and home ties.

Great is the subtle influence of the pictured word in settling the destiny of our children.

The pictured word is the most fruitful means of expression. It not only is powerful from the esthetic standpoint but also it has a great commercial and practical value.

I have a college friend whom I visited not long ago in New York City, who is so skilful in transferring his thoughts to paper by means of the pictured word that the metropolitan papers and magazines give him annually a larger income than that enjoyed by the President of the United States. The power of the pictured word of my friend is very far-reaching, as this little personal experience shows.

A metropolitan paper had employed him to picture a ward politician to whom this paper was opposed in just as villainous and as bad a light as possible. From a boot-blacking stand in this politician's ward, which I patronized by chance, I saw in a window nearby one of the pictured words of my friend. The thought could not be misread. This political boss of that ward was picking the pocket of another man who was labeled "the

common people." I said to the bootblack, "Will you vote for him?" He shook his head, no, and said "He thief." The power of the pictured word.

The Visual Instruction Division of the State Department of Education, in my judgment, is doing a great work all over this State, with very limited resources, in supplying the schools with pictures for use in stimulating thought. In our own school we have received and used these pictures. We have taken the people of our community with us across the sea to new countries; we have taken them to see our industries, to see our lumbering, to our great manufacturing centers, to our great marts and ports to see our commerce, and my friends, it has had a powerful influence in shaping the thought of our community. It is a great and wonderful work.

A few days ago in a sixth grade I saw some pictures thrown on a screen showing the details of our lumbering industry. After the pictures had been shown and carefully studied with some explanations, the teacher asked the class to write on lumbering in our great forests. The result was the best set of papers I have ever seen from any intermediate grade.

Some of you can look back to Webster's spelling book and the little old red schoolhouse. Perhaps you will recall some experiences similar to mine when we studied the written word without the slightest notion of a pictured word. At this moment in my mind are two words. One means a place of education, the other a place of burial. I shall not venture now to fit these words to their appropriate meaning; for cemetery and seminary, when I learned them, were to me empty sounds and should I attempt to use them now you would probably think I was trying to be humorous.

In our educational work we must remember that it is just as impossible to get something from the head of a boy where the pictured word is absent as it is to get blood from a turnip or water from a dry well. Our Visual Instruction Division is doing a great work, and I hope that it will have the means to furnish us with pictures for study, and with motion pictures, if

you please, so that we may take our pupils and parents on excursions all over the world and give them material with which to think. We can not compel one noble thought or high ambition, but by some suggestion we may inspire the interest, the enthusiasm, the ideals that will bring them into life.

The pictured word begets a suggestion. A suggestion begets a thought. A thought begets a motive. A motive begets an act. An act begets a habit. A habit begets a character and a character begets a destiny. My friends, we can almost say that the pictured word is all-powerful in shaping our destiny, for through the inspiration of suggestion the soul is educated.

PRESIDENT FINLEY: We certainly are grateful to Principal Thompson for his exceedingly interesting address. I wish we had time to consider the influence of the pictured word on the life of our people. I had hoped that we might include such a discussion in this program, for think what that influence is. Here is a boy who lives perhaps as I lived as a boy, with only the neighbors that could be seen immediately about. If he had a stern Scotch father there was not very much of the written word that came from the outside except the Good Book and the religious paper and the weekly paper. That was the world of the boy unless he had an imagination. Now, a boy, whether he lives there or in a city, has for neighbors people living on the other side of the world, perhaps. Into the block where the boy lives the worst of the earth may be brought, but fortunately the best of the world may be brought too, and we are to think this afternoon of what may be brought for the good of the child, particularly in the school; what may be brought by the pictured world to him. We can not, of course, treat this subject exhaustively, but I heard of a teacher (we are keeping our eyes open and our ears open to what is going on in the State) — I heard of a teacher who was using the pictured word to teach the spoken word. I do not know what he has to say, I do not know what his method is, but I thought I would give him a chance to tell us, so I have asked Mr Rickard, principal of one of the schools at Syracuse, to speak to us for a few minutes.

## THE USE OF THE PICTURED WORD IN TEACHING ORAL ENGLISH

H. D. RICKARD

*Principal of Putnam School, Syracuse*

I appreciate the honor Doctor Finley has done me in asking me to speak to you. I am grateful for his good opinion of the work that we are doing.

"The pictured word"—If I but had my third year class of little people here to demonstrate this work I am sure that you would readily agree with me, that it is doing a surprisingly great amount of good in building their vocabularies.

A few days ago we were studying a picture representing a summer scene in the country. Little Tony, eight years of age, who speaks English as fluently as he does Italian, was describing an imaginary visit to his uncle's farm. He told the class that "after laboriously assisting the men in the field all the forenoon," he "came to the house hot and perspiring and thoroughly worn out."

It is not possible to have the class demonstration at this time, so I shall endeavor to outline for you the work that we are doing in Putnam School, Syracuse, in teaching English by the use of the stereopticon.

We have gone far enough in our experiment to establish the value of the stereopticon as an aid in providing concrete illustrative material, as a basis for sentence building and story-telling, and as an aid in promoting in the mind of the child an interest and an enthusiasm in the English work. I shall endeavor to describe, in a few words, the manner in which we have used it in our third year classes to arouse enthusiasm, stimulate a flow of ideas, promote freedom of thought and speech, establish principles of expression and correct common errors of everyday conversation. I firmly believe that by our plan the average child may easily be taught to think along logical lines.

We present to the children suggestive pictures in order to get

them to express their thoughts in conversational language. We endeavor to have them correct errors of speech in such a manner that not only is the speaker benefited, but also every member of the class, and at the same time each and every one thoroughly enjoys the helps given.

Mistakes in English are mainly due to incorrect teaching. By this, I mean the teaching of the home, the playground, the street and I might include some classrooms. There is nothing inherent in the mental make-up of the child that causes him to adopt the incorrect rather than the correct form. He learns by imitation and, as I see it, there are just two ways to establish in him the habit of correct speech. One is to see to it that he hears nothing but correct forms; the other is to point out to him his inaccuracies, if he has already acquired them, and then give him sufficient practice in the correct forms so that they become a part of him.

Nearly all errors of expression may be divided approximately as follows: Verb errors, 40 per cent; mispronunciation of words, 20 per cent; misuse of pronouns, 17 per cent; colloquialisms, 12 per cent; adverb errors, 6 per cent; double negatives, 3 per cent; and miscellaneous, 2 per cent.

Most errors of expression may be traced to a few simple sources and if the child can be guided aright while passing these danger points, his course through the succeeding departments is a comparatively easy one.

Briefly stated, our plan (or one of our plans) for teaching oral English is as follows: We present to the child a picture that appeals to his interest and experience. We induce him to talk fluently, either about the picture or about something suggested by the picture. We aim to correct inaccuracies of expression for the benefit of all the other members of the class. Finally, we teach the child to inscribe his thoughts upon the written page.

When we first began the work it was a difficult task to find a pupil who would stand upon his feet and give two connected sentences concerning the topic in question. After a term's work the child was an exception who would not stand, announce the

title of his story, and talk extemporaneously for five or six minutes, in the meantime using a surprisingly satisfactory choice of English expressions.

The greatest difficulty we have met in the work has been in obtaining a sufficient quantity of suitable pictures. The Visual Instruction Division has been most courteous and helpful in assisting us to make selections. We have already listed a number of slides that are good.

A good slide is one that enlists the interest of the child. It must come within the range of his experience. It should have a central figure, should be clean cut and should not contain too much detail. This is especially true of the slides used for beginners. A picture showing a child, or something that a child does, or something in which he is vastly interested, is good. Some animal pictures are desirable and almost all the Kg (Ka) set are specially adapted to this work.

Now let me show you what I mean.

(Have picture Ka 11 put on screen.)

"Oh! Isn't this a beautiful picture?" This might be the opening remark of the teacher. Why? Because "like teacher like pupil." Enthusiasm begets enthusiasm. Every child sits up and is just delighted with the picture. Your first point is gained.

"What do you like about this picture?" "I like the little girl." "Why do you like her?" "She is so pleasant, clean, happy, bright etc."

I would next lead the children to observe the dress of the little girl, her hair, head, eyes, feet etc. I would call attention to the fact that the little girl and her dog are out of doors. I would also call attention to the facial expression: the face is pleasant, smiling, good natured; the child is happy, healthy, bright, clean, wide-awake etc. (Incidental lesson on hygiene.) Child smiling because happy; happy because healthy; healthy because clean; fresh air, etc. (Incidental lessons on kindness to animals, politeness, morals and manners, duties to parents, teachers and playmates may be brought in.)

"What do you think the little girl is doing?" "Standing beside the dog." I would then draw out some ideas concerning the dog. Perhaps I would suggest that we name the little girl and also the dog to make our work *real*. (Draw upon imagination.)

"Why do you think that the little girl and the dog are together?" "They are having a picture taken." "Where?" Ask other questions, leading children to see everything in the picture.

"Now, children, I am going to let each one of you tell one thing about the picture." Children answer in turn. At first the teacher corrects, but later the children correct.

"Now, who would like to tell a story?" Select the brightest pupil and have him give the title. Let him talk at first freely, making no corrections until he has finished; just tell *a story*.

As children gain in confidence corrections may easily be made without embarrassment. As each succeeding child tells his story he tries to tell it in a very different way than the others told their stories, but still he adheres to the picture.

It is well for the teacher occasionally to tell the children a story so that they may form an idea of how a good story should be told. The reading book has stories, and the teacher might call the attention of children to these as typical models. We use the oral work as the foundation for the written work.

"Now, how many would like to learn to write a story to take home?" (All hands are raised.)

When the oral work is finished I would step to the board and ask for a *title* for a *written story*. I would perfect that, place it upon the board and ask the children to give a sentence.

I would suggest changes, if necessary (or ask the class to suggest them), and when satisfactory, place the sentence upon the board. I would lead the children to see that the written story must of necessity be shorter than the oral. And so sentence by sentence a logical *written story* is built up, including punctuation, capitalization etc. When the story is completed, I

would in turn have two or three members of the class read it aloud. The next day I would have the children copy the story from the board and upon the following day I would have each one write an original story of limited length (to begin with not more than four or five sentences) so that attention may be paid to good work. In this way connected *written* story work is developed from the oral exercises.

Judging from our results I have concluded as follows:

1 The use of the stereopticon develops concentration. The attention of every *pupil* in the room is directed toward the bright spot on the curtain.

2 The darkened room furnishes conditions for an uninterrupted flow of ideas. It is an atmosphere for thinking, all outside distractions being practically eliminated.

3 It provides a period for relaxation and rests the eyes of the children.

4 It promotes freedom of thought and freedom of manner — a most valuable asset.

5 Attractive pictures arouse the interest of the children. They are stirred by a desire to read and learn more of the topics suggested by them.

6 The plan teaches observation and incidentally teaches the children how to read a picture.

7 It opens an avenue for the teaching of courtesies, morals and manners.

We lead the children to tell us the good points in the stories of the other children as well as to look for mistakes. And right here I am reminded of an incident which recently happened in one of my primary classes. I came into the room just as Harold had finished his story. Harold usually needed a gentle reminder that his story should not be too long. When he had finished the teacher said, "That was a good story. Now, why did I like it?" To her surprise a child said, "You liked Harold's story because he did not tell all he knew."

I must not tell you all I know.

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PRESIDENT FINLEY: I present to you, Ladies and Gentlemen, Mr A. W. Abrams, who is the keeper of the pictured word. He has made protest that he can not in fifteen minutes begin to tell you about his treasures, so you will know that Mr Abrams will not tell you all that he knows in the next fifteen minutes. We have a special incentive to hurry along with these slides since the heat of the instrument is so great that I seem to see them boil.

[Alfred W. Abrams, Chief of the Visual Instruction Division of The University of the State of New York, spoke upon the use and interpretation of lantern slides in school work. His remarks referred entirely to the pictures thrown upon the screen, by means of which he indicated different types or classes of pictures and showed how each type should be used to secure the largest educational results. It is impracticable to print in these proceedings what he said, as the value of his remarks lies largely in their close association with the pictures shown upon the screen.]

CHARLES H. KEYES: My thought has been running, I suspect, far afield from the special point on which I might most properly be expected to lay some stress this afternoon. I have assumed with you that we live in a day when we know enough to use the pictured word to illuminate our teaching of subjects like history and literature, and especially the subdivisions of these that we call history of art, history of architecture, costume design and house decoration. But I am tempted to ask if the history of teaching during the last two decades has not forced home to everybody who thinks about the movement of events, the conviction that we are year by year coming to teach better all the subjects in which we recognize the pictured word as a legitimate teaching instrument?

Contrast, if you please, the progress, or the lack of progress, in the teaching of classics or mathematics in the last twenty-five years. These subjects, taken as a whole, are no better taught

in the secondary school or college than they were twenty-five years ago; but who for a moment would hesitate to say that history and the natural sciences, in fact all the subjects in which the teacher has definitely resorted to the pictured word as an instrument of instruction, have moved a pace that has not been followed by mathematical teaching or by language teaching? I am tempted to ask if the exhibit of this half day does not bring to us strongly the question, Must not the development of the language art, if it is ever to be other than the hopeless thing it now is, get the key to a new principle of teaching in this consideration of the influence of the pictured word?

If we may rely upon the testimony of professors of the English language, literature and rhetoric in the colleges, we may confidently assume that the secondary schools are absolutely failing to accomplish the real purpose they have in mind in teaching the language arts. They will admit that in the preparatory schools everything else is well done, but there is no production of the power to use the spoken or the written word to convey ideas.

If we rely upon the testimony of the teachers of the secondary schools, there is, despite such convincing evidences as we have had this afternoon, a complete failure in the elementary schools to give any particular mastery of the art of speaking or writing the English language. And if we go into our churches or our schoolrooms, or, Mr President, I had almost said, into educational functions and convocations in other states than New York, we are tempted to believe they all tell the truth. In a word, our one manifest failure in the whole realm of instruction in the elementary school, secondary school and college is our failure to give any power over the spoken or the written word; and in just a moment I want to try to analyze the reason for that.

Anyone can speak lucidly and convincingly about a theme of which he knows something, provided he feels that he has a message. The boy on the baseball ground, the boy on the football ground, the consummate dunce of the language class, is eloquent when he is talking to the men on the squad about the

thing of which he knows something and in which he has an overwhelming interest. In our teaching of language we are proceeding upon the assumption that it is purely a matter of form that we are trying to develop. We are forgetful of the fact that before form there must come content, vision and feeling.

Language, it has been said, is the instrument by which some men convey and others conceal thought; but that is not quite the whole story. It is the cloak behind which some folk conceal the fact that upon the subject assigned to them or chosen by them they have no thought.

I conceive that the order of teaching of language is first, to inspire, stimulate, provoke or compel thought, stimulate feeling and open vision. Once this is done with subjects wisely selected in a field that insures the interest of the pupil, there will be little difficulty in getting from him a reasonably lucid expression of the thought that is his. The remaining task of the language teacher in developing the language arts, in secondary school, elementary school or college, will be to train, prune, develop, drill the language powers through much practice, which alone can achieve perfection in any art.

It is notably true that in college education in language we often assume an interest that is not there. We set young men and young women to writing themes. First of all, they have no interest in writing these. Second, if they had their choice, they would consign the themes to a hotter place than a furnace, and in the next place, it has never occurred to the teacher that it is his business to inspire interest and then provoke some thinking about the subject of interest, whereupon the little remainder of the business is the thing that we devote ourselves to with such calamitous failure all through the years devoted to training in the use of the spoken or the written word for that purpose.

My thought is this: The whole underlying sense of this discussion is that the pictured word is to be used first of all to beget interest, open vision and stimulate thinking. We have been told by the opening speaker of the afternoon that these three things must be kept in mind in the selection of pictures; that we must

take subjects that inspire thought, having in mind the relationship between the subject and the young person whom we would teach. That is, we must have interest first and get the thought next. Then may we hope to open the vision and evoke the feeling which will produce mastery of the symbols of thought, whether they be vocal or written.

My feeling is that it would be a long step forward for those of us who are trying to develop the language arts in college and the secondary school alike, if we could only take a lesson from the results of this session. Shall we not address ourselves to the development of these three great language forms on the basis of the conclusion that interest, thought, vision and feeling developed through the use of the spoken, the written or the pictured word will achieve the success we so long have vainly sought? When we shall have done this I am sure that we shall have given an impetus to the teaching of the language arts that will some day put them on the plane of advancement that has been made in the teaching of almost every other subject in college or in preparatory school.

H. DEW. DEGROAT: Some years ago just prior to a spirited mayoralty campaign in one of our large cities, as an inspector for the Education Department, I was visiting a large high school. During one of the days of my visit I spent a period in a class in Greek history. The subject under discussion that day was the tyrants in Athens. That the girls in that particular class had grasped well the Greek idea of the tyrant was evident as the recitation went on. "Were the Greek tyrants the kind of men that we regard as tyrants today?" "No, not at all." "Have we tyrants in these days?" "Yes." The name of a conspicuous politician came back promptly from the class with a shout in as perfect a unison as if a signal had been given by a cheerleader for a cheer known and drilled on in advance.

The thought occurred to me that here was a splendid example of the power of the pictured word. Those girls had gained their ideas of the particular man whose name was shouted,

almost wholly from the cartoons in the daily papers, and these ideas of the man were doubtless most inaccurate. Probably few of the girls could have given even one specific reason for pronouncing the man a tyrant.

This power of the pictured word, so effective in shaping ideas, is one that has been much neglected in the past. From the instruction of many teachers whom I have seen at work, I judge that there is a wholesale neglect to use the material at hand in many of our textbooks. The number of teachers whom I have seen using properly, or even at all, the pictures in readers as sources of information and inspiration for the reading lesson has been very limited indeed.

During the past three or four years we have been endeavoring to train teachers to use intelligently the method of visual instruction in teaching. We have used it in science, in history, in drawing and particularly for instruction in library work.

We have not depended wholly on the Visual Instruction Division for our slides, but we have made them for ourselves whenever we could use them to advantage. In many schools only the science departments are preparing their own slides and in many other schools teachers believe that slides can be prepared only by a tedious, complicated process of photography. A simple transparent coating of one part of a good light varnish and nine parts of turpentine or gasoline will turn a piece of glass of the proper size into a medium that will take ink as readily as the finest paper. In this way it is possible to prepare slides containing drawings or brief summaries that can be used most profitably in teaching.

In our work in training teachers to use the method of visual instruction we have found a prevailing tendency to adopt the lecture method of procedure. This tendency has been obviated by giving the teacher in training a topic for which a written lesson plan is to be worked out. From a large number of slides she is to pick out six or eight showing the general fact or facts that are to be taught. These are to be used as the basis of the

lesson, and a few more supplementary slides illustrating the same fact or facts may be used.

The recitation in which the plan is actually worked out is of the "socialized" variety. The teacher has been impressed with the idea that the lecture method is not to be employed. She must know in advance exactly what is on each slide. Her questions are aimed to induce the members of the class to think and talk, to compare and generalize, and to apply. The whole procedure is inductive. Thus the temptation always open to the teacher to do all the talking is removed, but the teacher is free to use her judgment in explaining features of the pictures that are not easily understood and in omitting wholly other features that are non-essential to the aim of the lesson.

During the past year we have undertaken the teaching of courtesy through dramatization. In this line of work we have felt the need of moving pictures which, for this particular purpose, would be superior to slides.

The value of teaching through the medium of visual instruction seems obvious. The procedure can be made to conform to pedagogical principles. The whole scheme rests on a psychological basis; yet supervisors are by no means unanimous in their ideas about the value of visual instruction. To be sure, other schemes of teaching which seemed pedagogical have in the past been wholly or partially abandoned as impractical.

Some principals are enthusiastic about visual instruction; others are indifferent to its use, while a few, I suppose, would stand in direct opposition to it. Since this is the situation, it would seem to me that some extensive investigation should be started to determine its value and to answer scientifically questions such as these: Does the interest aroused simply entertain temporarily? Does the knowledge gained make a deeper and more lasting impression? Does the instruction result in a more ready and more intelligent application of the material presented? To what extent is a combination of the usual plan of recitation with visual instruction superior to the recitation without

visual instruction? In what respects and in what lines of teaching is the moving picture superior, if at all, to the slide?

Surely in these days of exact measurements and standardized results, the Education Department can devise some method of answering these questions, for the time has come when actual proofs of the superiority of visual instruction must be presented instead of individual opinions and impressions.

This investigation can be worked out successfully only through the cooperation of the principals and superintendents throughout the State. Enough of them, I am sure, will cooperate gladly in a study of this kind to determine definitely the value of visual instruction and give it the place in education which it really deserves.

H. D. HERVEY: I can speak on this subject not as an expert but rather as one who has come only quite recently to appreciate with any degree of adequacy the place, the function and the value of the lantern slide as a tool of education. I owe this enlarging conception to Mr Abrams, who presented this subject to my own teachers last spring. I feel that we are fortunate not only in having so readily available a wealth of lantern slides, but especially in having at the head of the Visual Instruction Division one who has developed the psychology and pedagogy of visual instruction so adequately and can present the subject with such clearness and force to the teachers of the State.

We shall fail to secure the full measure of success in this line of work, however, unless the principles underlying this newer method of instruction are clearly grasped and faithfully applied. Mr Rickard has shown us this afternoon how effective this type of instruction may be made in the hands of a master teacher.

The lantern slide is not primarily a means of entertainment; it is a means of instruction. To be of highest value it must be selected, presented and studied with a definite, well-considered educational purpose in view. The child must be taught to observe, to discriminate, to see the significant. The value of our work will be shown by the degree in which clearness of observation issues in clear, accurate and logical expression.

PRESIDENT FINLEY: I have invited a modest young man to come here this afternoon to receive for you and reproduce for you what I heard and saw in a great hall in New York City a few nights ago. This young man was unseen then. The next morning I found that he was a tall and handsome young man from New England. He talked to us by the telephone. What an advantage it would be for the audience if some of us could talk always by the telephone, but this will be unnecessary for him here, except for illustrative purposes.

He will speak on "Vibrations," and in the course of the lecture his own voice will be pictured on the screen. I have great pleasure in introducing Mr O. B. Blackwell, transmission engineer, American Telephone and Telegraph Company.

## VIBRATIONS

O. B. BLACKWELL

*Transmission Engineer, American Telephone and Telegraph Company*

If I had known just the manner in which Doctor Finley would introduce me, I assure you that I should not be seen, but should have talked to you as I did the other night from a very convenient booth in the back of the hall.

I wish to hold your attention for a short time to a discussion and demonstration of vibrations. You surely need no formal definition of what I mean by vibrations. When things swing or quiver or oscillate we say they are vibrating. Those of you who own Fords will easily appreciate what I mean.

When a body is vibrating it has a tendency to set things vibrating around it, and they in turn set things vibrating in their vicinity. That is, it sends out traveling vibrations, as we might call them. These traveling vibrations we usually call waves.

Let us look then for a while at this general idea of vibrations, both those which remain in one place and those that travel and which we call waves. This is, of course, an old idea to all of you. But have you ever stopped to consider how vitally important vibrations are to you in every moment of your life? You

see by vibrations, you hear by vibrations, you feel and are warmed by vibrations. It would not be far wrong, physically speaking, to say you *are* vibrations.

The beautiful forms and colors which delight your eyes and the beautiful speech and music which entrance your ears are all merely complex vibrations which the waves of light and sound bring to you. Without these vibrations you would be blind and deaf and dumb. Your contact with your fellow man and with the beautiful world around you is largely a matter of the vibrations which they send out to you and which you in turn send back to them.

The importance of vibrations might be pointed out by analyzing the experience of anyone. To you as teachers and those interested in teaching I will point it out in terms of teaching. You will pardon me if for the moment I overlook entirely the real purpose of teaching methods and consider only the physical side of the process.

To bring out the point I wish to make, please imagine with me the following characters and surroundings. First, little Johnnie who is to be taught. Next, Miss Teacher who is to do the teaching. Imagine these to be surrounded by a very modern classroom which means that it is equipped with beautiful books and pictures, with musical instruments, with a phonograph, with a stereopticon and with a moving picture machine.

With this set up, what do you suppose is my conception, from an engineering standpoint, of the teaching process which goes on? Just this. From morning until night Miss Teacher spends most of her time in making or in having made various and sundry kinds of vibrations which are duly thrown out as waves at little Johnnie. The rest of the time perhaps she spends in receiving the various and sundry kinds of vibrations which little Johnnie produces and sends back to her.

This is perhaps a peculiar idea to you and yet you can easily see that it is true if you run over the various things she does.

Let us suppose that in the morning Miss Teacher plays the piano for marching. That is, she hits various stretched strings

so that they vibrate and the air waves go out and hit little Johnnie's ears and he learns time and rhythm. Perhaps next the phonograph is started and vibrations are sent out by it which are true copies of those made by our greatest sound vibration makers such as Caruso or Farrar, and these are aimed at little Johnnie so he will acquire musical appreciation.

And next perhaps little Johnnie is given a picture book so that he may learn the wonders of his country. But what is a book? Why, a book is merely a rather complex device for controlling vibrations. To use a book you must have a lighted room. That is, the room must be filled with the electromagnetic vibrations we call light, and which are constantly falling on and being thrown back and diffused by every object in the room. And when these vibrations fall on the book, the white surface of the page throws it out again in all directions. The black marks of the printing, however, absorb the vibrations and throw back but little, and the red marks of the pictures throw back certain kinds of vibrations and absorb others, and the blue marks throw back certain kinds and absorb others, and so the other colors. And so I say that the book is just a very complex device for controlling vibrations and throwing them at little Johnnie. And he by weary hours of study learns to interpret the impression which the vibrations make when they impinge upon his eyes. And the blackboard and the stereopticon and the moving picture, they are all other means of throwing vibrations at little Johnnie.

And last and most important, for I take it that the largest thing in the teaching process is the personal relation between teacher and pupil, Miss Teacher's voice is only her most personal way of throwing vibrations at little Johnnie. And even the approving smile with which she rewards his efforts, that too is merely a matter of changes in the intensities and directions of the light waves which fall on Miss Teacher's face and are from there thrown out in little Johnnie's direction.

Let me summarize in somewhat different words the ideas I wish to convey. Our contact with the world around us is largely through vibrations. Our ears are organs which give us

sensations when they are acted on by a very small range of vibrations out of a general type we would call mechanical vibrations. And our eyes are organs which give us sensations when they are acted on by a very small range of a type of vibrations which we call electromagnetic vibrations. There is, of course, a big range of mechanical vibration to which we are deaf and a big range of electromagnetic vibration to which we are blind.

It is very interesting to speculate what the world would look like to us if our organs of sense would react to other types of vibrations. But with these organs we have been equipped and only the special instrument of the physicist can detect, if at all, the great volume of other vibrations to which we are deaf and blind.

As a telephone engineer I am interested primarily in sound vibrations, and especially as these are used in speech. For the rest of my time I shall therefore tell you something about this variety of vibrations.

Speech is a rather peculiar thing from the physical standpoint. Very crudely stated, it is as follows: When we want to convey an idea we pump air from our chests through our vocal cords, and we change their tension; we form our mouths into different shapes, and we push our tongues into different positions, and as a result we send out a quite complex set of air vibrations. The vibrations travel out and touch the ears of the one to whom we are talking and set his ear drums vibrating, which affects his nerves and gives him sensations of sound, as we say. And these sounds we regulate according to a very complex code we call language. If the listener and ourselves know the same code, then he understands the ideas we are trying to convey to him. We have then what we might call a sound vibration contact between each man and other men.

As civilization demands more and more of man and makes his activities more complex and exacting, this speech contact between a man and his fellows becomes of greater and greater importance. But now it happens that sound vibrations are a rather unsatisfactory method of contact between people. It does very well, to be

sure, when the people are face to face. But with only a few tens of feet between people and they can no longer understand one another. And so the circle in which a man can exercise this voice vibration contact is only a few yards wide.

Things were in this state when an inventive genius produced a small device into which one could let the air vibrations go and then out of it would come electrical vibrations which varied in magnitude just in accordance with the air vibrations. And it was very soon after this that the profession of telephone engineer started.

This change from air vibrations to electrical vibrations opened up wonderful possibilities, for air vibrations are very poor things to carry for any considerable distance. They travel slowly, quickly die out and are difficult to confine to a definite path. The electrical vibrations, however, are capable of being handled wonderfully well. They travel with terrific speed, they can be made to confine themselves to definite paths, formed by wires, and to travel long distances without undue loss. And so the telephone business has been built up around this idea.

Now when Smith of New York wishes to talk to Jones of Chicago, you know very well what he does. He goes to his telephone and talks his air vibrations into what we call the transmitter of the set. And this sends out electrical vibrations which travel over wires across the country to Chicago and there they terminate in another telephone set on the desk of Jones. And here the electrical vibrations are led into a little receiving device which Jones holds in his hands. And they make a diaphragm in the device vibrate. This sends out air vibrations which vary in magnitude just in accordance with the electrical vibrations and these air vibrations travel the short distance to the ears of Jones and he hears the voice of Smith.

We have just said that these electrical vibrations traveled over the telephone wires from New York to Chicago. You are all familiar with such wires strung on poles along our highways. Let us consider for a moment a section of one of these, such as that shown here. (Slide 1) This is not a very typical line as it

is small and carries but few wires. It is, however, especially interesting to me in that it is a section out in a semidesert in Nevada, I believe, of a line that daily carries vibrations all the way from New York to San Francisco.

I wish it were possible in some way for us to see these vibrations as they go over the wires. The waves are not, as you might think, confined inside the wires. They are mostly outside the wires and envelop them and, as it were, slide along them. They are, moreover, of the most complex and beautiful shapes.

But we can not see the waves directly. We shall, however, attempt to give you some idea of what the waves look like by means of an instrument we have set up here in front of the stage. Briefly, the instrument works like this: First, we have a device similar in principle to the telephone receiver you hold to your ear when telephoning. That is, the device has a diaphragm which vibrates when electrical vibrations are put through the device. Next, we have a small mirror mounted on stretched wires. These wires are so attached to the diaphragm that, when the diaphragm vibrates, the little mirror vibrates just in accord with it. There, in principle, you have the whole thing.

Now we throw a spot of light from a stereopticon on this mirror and face it so that it falls on the screen, and with proper lenses it makes this spot. Next we will connect the receiver of the device in parallel with a telephone circuit which we have arranged in the hall. If you will all hold to your ears the little receivers which you will find hanging near your seats I will speak the next few paragraphs into the telephone circuit. (*Connect in.*)

The spot vibrates back and forth as you see, right in time with my voice vibrations. Then to show how the vibrations look as they travel over the line we make the spot travel rapidly across the screen by means of rotating mirrors. (*Rotate.*) This then shows us a tracing which follows the current vibrations in the circuit carrying my voice to you.

I shall now have some sounds made and shall then speak some words and you can both hear and see the vibrations which form them.

First, we shall show what we would call a nearly pure simple wave of 800 vibrations a second. This is about the average frequency of the human voice. You will hear this tone in the receivers. Next, we shall show a 400 vibration a second wave with some 800 cycle in it. This makes a wave somewhat complex, yet sufficiently simple for you to see the form clearly.

I shall now make a number of vowel sounds at different pitches and speak a number of words "a, e, i, o, u." "This is the fifty-second Convocation of The University of the State of New York."

Instruments constructed on a similar principle but made to show on a small scale and with much greater refinement and accuracy such electrical vibrations, comprise one of our most powerful tools for use in investigating just what takes place in telephone and telegraph circuits. In this work we have the spot of light make a tracing on a photographic film. Here are parts of such films. (Oscillogram slide)

The top is from the word "America," the lower is from the word "Bell." By proper methods these tracings can be analyzed into their components and we can find just what goes on in the circuit. The waves are somewhat crowded in these particular pictures to get a large number on the slide. They would perhaps look somewhat better if stretched out more.

I hope at least you have received some faint idea of the beauty and complexity of the waves which go out over our wires. If it were possible for men to see such waves we would find the country people all along our lines sitting out in groups on warm summer evenings watching the beautiful telephone waves roll by.

Now that you have some picture of these vibrations you may be interested in the problem of handling them, which is this. Each of the millions of substation sets scattered over the country in offices and homes and factories and schools is a device for changing air vibrations into electrical vibrations and electrical vibrations back to air vibrations. We have to arrange, therefore, so that at any moment of the day we can set up a path for these electrical vibrations to travel over from any one of these millions

of sets to any other. Each completed path may be a few hundred feet long or it may stretch over three or four thousand miles.

Our general method of making paths, as you undoubtedly know, is by running pairs of wires. And these wires may be strung on poles along our highways, or they may be wrapped with paper and twisted together and in some cases six hundred or more paths covered in a lead pipe and run under our streets, or we may add iron wire protection and run them under our rivers.

The contemplation of a long path of this kind stretching for miles appeals strongly to the imagination. Consider it as it runs perhaps from the desk of a business man here, under the crowded streets, through village after village and towns and cities, under rivers, over mountains, across deserts, and finally ends perhaps on the desk of another business man in some distant city. And the minute electrical vibrations go over the longest of our circuits, say four thousand miles, in but little over one-fifteenth of a second.

From an engineering standpoint this problem of setting up paths for electrical vibrations is not easy at all. First, the paths have to be so designed that the vibrations can travel effectively the desired distances over them, but yet the paths must not be unduly expensive for the desired service. And then the paths have to be very carefully balanced so that they can be brought very close to one another and yet not spill their vibrations into one another. Sometimes they are brought so close that one girl operator can reach the ends of ten thousand paths and connect other paths to them.

And then the paths have to be very carefully guarded from intruders. An electrical railroad looks to you, I suppose, as just a transportation scheme. To me it looks like a big source of hostile vibrations which radiate out from its wires. We have to be constantly vigilant that these vibrations do not get into our telephone paths and so mix in with our vibrations as to make the telephone path noisy. And then there has to be most elaborate

arrangements for switching paths together so that the vibrations can be directed from any point to any other, and thousands of girls have to be constantly doing that.

I leave these facts with you as just a suggestion of the complexity of this problem of building and maintaining and operating electrical vibration paths so that this speech vibration contact between people may be limited not to a few yards but may include the whole country.

But sometimes we come to places where we can not set up these paths for electrical vibrations. Such a place, for example, is between a ship at sea and the shore, or between one shore and a distant shore. And so, comparatively recently, there have been tried out arrangements to send vibrations across such spaces without wire paths for them.

The arrangement in short is this. The electrical vibrations of ordinary telephony need wires to guide them if they are to be handled effectively. But it was found that very fast electrical vibrations of, say, fifty to a thousand or more times as fast as voice vibrations, would very readily leave wire circuits and rush out through space without wires. And so the idea was evolved of, as it were, saddling the ordinary electrical vibrations on the backs of the high frequency vibrations and thus letting the high frequency vibrations carry the voice vibrations along with them across big distances without wires.

Let me run through briefly the path of a wireless telephone communication. The talking might be done from any regular telephone substation. It would then be carried over the regular telephone lines to the wireless station which might look, for example, like this government station near Washington (slide 3). And here there would be generated the high frequency electrical vibrations, say of 50,000 vibrations a second. And in order that these high frequency vibrations could radiate out into space there would be big towers like those shown and wires would be strung at the top so as to take hold as it were of a whole lot of space. One of those towers is, I believe, 600 feet high. Next they would make the voice frequencies control those high frequencies.

Perhaps a slide will make this clear. (Slide 4). I imagine that the horizontal line represents changes in time and that vertical distances show the values of the current for any particular time.

In the ordinary telephone transmitter we have direct current flowing like that indicated by the words "direct current" on the slide. This direct current does not change with time. When we speak into the transmitter we vary this as shown in the first figure under the words "voice frequency currents." The voice wave for clearness is shown very simply. The varying part of the current goes out on the line as shown in the second figure under the words "voice frequency currents."

These then are the vibrations of ordinary telephony. At the wireless station we have the high frequency vibrations which we indicate on the screen under the heading "Wireless frequency currents." The ratio between the wireless and voice frequency has had to be distorted to make a good picture. The wireless frequency is really much faster relatively than shown. And then the voice frequency vibrations are made to vary the wireless frequencies and we get the combined effect shown in the last figure under the words "Wireless frequency modulated by voice frequency." These high frequencies rush out from the towers across the country in all directions and perhaps thousands of miles away a very minute part is caught by other towers such as that shown here (slide 5), which is a government station near San Francisco. The minute vibrations are put through apparatus which smooths out the high frequencies and leaves only the voice frequencies. These are amplified and sent out over regular telephone lines to the ear of the man to whom the message is being sent.

It was with such arrangements that words spoken in New York were sent out by wireless telephone from the station near Washington and were heard at the station near San Francisco, and at Paris and at Honolulu. It created very great wonder. Our artist has tried to picture it here for us (slide 6). This kind of telephony undoubtedly has an important field of use in places where you can not string paths for the ordinary telephony. It is,

however, from some standpoints a rather crude sort of telephony in spite of all the wonder of it, for it is for the most part an undirected telephony. While a minute part of the vibrations are received at the place where you wish them to go, the rest are spreading out all over the country and are perhaps being received where you do not wish them to be received, and perhaps are interfering with other messages.

To get a satisfactory telephone service for general use we need the efficient, definite, balanced paths such as we have been describing (slide 7) and which enable you to send your voice vibrations, as our artist here has tried to suggest, to just the one "man in the multitude" with whom one wishes to be in contact (slide 8) and the "spinners of speech," as our telephone operators have been called, are always waiting ready to set up such paths at your bidding.

I think perhaps you have by now received about all the vibrations about vibrations which you can take with any comfort. I suggest, however, the whole subject to you as one of great interest. I expect that some day there will emanate from some part of The University of the State of New York a complete philosophy of the universe written in terms of vibrations.

PRESIDENT FINLEY: We are certainly most grateful to Mr Blackwell for his uniquely interesting and instructive lecture.

This concludes our program with the exception of some moving pictures, which we have through the kindness of Mr Edison. Some years ago I went out to his laboratory and found he was undertaking to make educational films for the use of teachers. I think he has been somewhat disappointed that these films have not been largely used, but he has been kind enough to put at our disposal such films as he has. Three reels will now be shown, at the conclusion of which you will dismiss yourselves.

[Pictures illustrating the making of paper and the formation of crystals were then shown.]

## FIFTH SESSION

October 20, 1916, 8.15 p. m.

VICE CHANCELLOR VANDER VEER: It has been my privilege to attend many of our Convocations, but I can not call to mind one that has brought us more interest and has been of greater pleasure to us than the one that is about to be brought to an end. No Convocation closes successfully without hearing from our cheerful and genial associates from New York, and I have great pleasure in announcing that the speakers whom you are to hear this evening will be introduced by Regent Alexander.

REGENT ALEXANDER: The special subject which is before us this evening is the spoken word. Speech is one of our serious national failures. We do not treat the English and American language with respect. It is not that America is dumb. America is vocal with semiarticulate speech. Words without clear meaning, sentences without clear thought, sound and fury without significance in public debate are too often the order of the day. The stolid grunt of the red-faced Indian, who knew the value of the conservation of words, was more eloquent than grandiloquence and claptrap, just as his patriotic oratory in solemn debate in the dull glow of the council fire was often more truly eloquent than is the wordy strife of partisanship and favor-seeking in many a legislative hall of the American commonwealths of today.

Speech is a great heritage; a heritage that each generation should hand on to the next, purified, enriched, perfected — as superior, as an instrument of the national life, to the speech of yesterday as the machinery of one generation is superior to the machinery of the preceding. Philosophy and philology as well as a wise patriotism tell in no uncertain tongue, that the nation's speech is the spirit of the race, born with the birth of the race, preserved and perfected by the toil and study and anguish to untold millions of our fathers and mothers, and lent to us for the

little moment of our life to use — never to misuse — to perfect — never to debase — and to build into the blood and bone and spirit of our children, that the race may attain unto the true knowledge of good and evil, of essence and accident, of reality and appearance.

The American Speech League exists to exert a constant influence on the spoken English of the day, to improve the practice of speech, to formulate standards, to promote the appreciation of the music of words. We are fortunate in having with us tonight the secretary of the league, who will address us on "American Speech."

## AMERICAN SPEECH

JOHN MANTELL CLAPP

*Secretary, American Speech League*

The exercises af this Convocation mark the contributions made by Americans toward the mastery of language as a social instrument. It is not to undervalue the written word, for ages man's finest medium of expression in art, nor the new pictured word, limitless in promise of instruction and delight, when we say that the celebration of the spoken word, oldest of all, here reinforced with what seems almost the ultimate perfection of mechanical aid is of preeminent significance today. For the occasion brings at once a warning and a promise as to the future of the spoken word in America.

As a people we are today unable to use the full possibilities of these marvelous machines. The speech of daily life, language in its most intimate, essential aspect, has been neglected among Americans. Despite our general concern for education we have become less careful of this universal medium of exchange, the spoken word, than our fathers were.

But we need today a far better command of language in daily life than did our fathers. This land has been speeded up to the many-sided life of twentieth century civilization. Men and women must live now in terms of swift, never-resting machinery.

Their speech, like their action and thoughts, must be readier than ever before, yet more accurate than ever before. To carry the vast structure of modern life, economic and social, to be adequate to the requirements of efficiency, preparedness, nationality, calls for a command of the spoken word diffused in substantial uniformity throughout our vast population, east, west, north and south.

This population, moreover, is today mixed of all the races; one-fourth of our hundred millions have a mother tongue other than English. How shall we, the workers of this modern Babel, understand one another? The language which we must all learn and use in daily life, fluently, uniformly, agreeably, is in the making, changing with every new foreign strain. English though it will remain in basis, the new American language, when it is fully developed, will be compounded, in idiom and utterance alike, of all the tongues of Europe. To make it possible that the vast process of language-making shall be carried through successfully, that the diverse peculiarities of varying dialects shall be softened and harmonized, that we shall have at last a truly national language, universally intelligible, entirely expressive, calls for a deliberate effort by all who love the Republic to purify and harmonize the daily speech of our millions, an effort nationwide, constructive in aim, broadly cooperative in method.

In this celebration tonight, the first of its kind in the world, may we not see the realization by the sagacious men who planned it, that the time for such an effort has come? Where better should it begin than in this temple of democratic education, in the Gateway State of America, where Babel is most confused, but where the forces of constructive intelligence are most powerful and most awake.

But this movement will not work mainly, we may believe, through government activity as in Europe. That is not our way, though the educational machinery of city, state and nation must do its part. Rather, I believe, through a voluntary propaganda — an American Speech League — a preparedness league in the truest sense, gathering gradually behind it, through honesty and

prudence, the support of all persons of whatever calling throughout the nation who desire better conditions; commanding the respect alike of scholars and men of affairs as to its standards; national in outlook; patient and resourceful in methods. The aim of this American Speech League should not be mainly to act as critic or censor; rather to rouse public opinion, to make the hundred millions care for accuracy and efficiency of speech, the common carrier of common business, and for the power and charm of voice, that language of the personality which multiplies the significance of the words of speech; and then to show the millions the possibility of their own improvement.

Once the ordinary man or woman desires to improve, to cooperate with others for improvement, nature will do much for him or her. "Doing the Law he shall know the doctrine." He will himself seek for accuracy, grace, necessary uniformity; and the right methods of instruction will come in their time.

And those who are definitely interested in the general mastery of the spoken word — what an army they are! Not the teachers only, in public schools and private, general and professional; but those who use the voice in public — actors and singers, lecturers, clergymen and lawyers; the medical fraternity, engaged so largely now in fighting ailments of throat or lungs, which would be almost eliminated if right use of the voice-apparatus were general; social organizations whose efforts for a finer community life would be aided by general awakening to the beauty of human utterance; and most immediately influential of all, an influence hitherto neglected, the many branches of business, whose success, as modern business analysis is revealing, turns largely on the accurate, ready, pleasing use of speech. To rouse the attention of these groups is no impossible task; many of them are actively at work already, but ineffectively because uncorrelated. They need only to be shown the possibility of effective cooperation. Once organize this army — the schools, the influences of social life, of professional and commercial life — and public opinion will be made over. Within a generation our people would have a mastery of the new American language

which would make life a more efficient and a more lovely thing than the world has known.

This celebration, calling the attention of New York, and through New York of the nation, to the need and the possibilities of the spoken word, is the beginning of the great campaign.

REGENT ALEXANDER: I take the liberty of an old friend in suggesting that perhaps our next speaker may be a bit of a heretic. A heretic is important, not on account of his heresy, but on account of his faith. Mr Chapman has faith, prophetic faith, in salvation through speech, that "Conversation is the life of literature, and perhaps of all the fine arts." I take pleasure in introducing Mr John Jay Chapman.

## THE BETTER USE OF THE SPOKEN WORD

JOHN JAY CHAPMAN

The wonderful response which the public has given to Doctor Finley's suggestion of a convocation about our speech, the atmosphere that prevailed in this hall this afternoon, and the telling words of the last speaker all must convince us that America is alive to the greatness of the question which is here raised today.

I noticed this afternoon that among all the speakers there was no talking in the air, no generalization of a watery kind. The talk was by men who had been schoolmasters and who came here with something to say that arose out of their own individual experiences. It seems as if two great facts were now recognized. First, the fact of the danger in which we stand from the degradation of our popular speech, both spoken and written. The calamitous condition of our idiom on the street, in the newspapers, in the schools and in business, shows us that unless some action be taken it will not be long before English literature becomes a difficult thing for the average American to understand.

Soon our old poets, orators and essayists will seem to be remote, of another era, of a literary kind; they will be understood only by the elect. We shall lose the inheritance of the English

language, which some people think is the greatest of the modern languages. The Bible will become a hard book, read with an effort; and even Longfellow, Emerson and Hawthorne will be read as we read a foreign language, unless we now stand to and see that both the speech and the writing which we have inherited shall be transmitted to our children.

The second great fact that is evident is that the mode of attacking the question is now well understood. Our salvation lies in teaching the younger classes of children to use English.

As I listened to Mr Rickard, who talked for twenty minutes in a natural and intelligent way, showing what he was doing in Syracuse, I kept saying to myself, "That is the way to do it." He takes the young Italian of six; he writes some word on the blackboard, he gets the child to see what the thing suggests to him and to make a little speech about it; the whole class assists. A little composition is thus developed, which is then copied by the class. It is reduced to good, standard English, and the children are encouraged on the next day to bring something of the same kind of an original nature which they have written. There you have speech and writing, the living word and the written word, the tradition of the usage put into the child at the earliest age at which he can receive it. I say that it is wonderfully encouraging to find that the thing is being done now, and that this Convocation is not something which is to start an idea, but a thing to encourage the people who are already practising this idea.

Another gentleman spoke this afternoon who impressed me very much — President Keyes. He spoke with the utmost feeling about the decay of our language and the inability of the graduating classes of our universities to write good English. Both Doctor Keyes and Mr Rickard, one of whom spoke of the higher education and the other of the primary education, had the same thought in their minds, namely, that the subject of English really was not a subject at all. English, the ability to speak and write English, is so intimately dependent upon the ability to think for one's self that the thing can not be taught but only inspired.

It must be thrown into the atmosphere. A teacher of geography ought to be as much interested in the English education of his pupils as he is in geography. They ought to be learning English all the time; and it is only when that view is taken of the entire subject that we shall have natural, vocal, spontaneous English. We are obliged to take English up as a study but yet we have to remember all the time that English is more like life than it is like a study. So also these different headings into which the subject has been divided tonight — the spoken word, the written word, the pictured word — are very valuable and very interesting; but we have to remember that we are always dealing with something which is not divided. It is in the soul of the child that all these things meet. Mr Rickard said with his left hand, accidentally as it were, about the profoundest thing about the whole subject that can be imagined, when he said that you often tell a child what the *usage* is when he is six, leaving him to learn the grammar of it when he is twelve. That is the point; give him the usage early. Give him the usage, and then the grammar will do him no harm.

Body and soul meet in the voice. The voice is the man. His intellect and education record themselves at every moment in his enunciation, in his conscious and unconscious habits of utterance. Here too, in this crucible and forge of speech, lies the source of all writing; for the living word is father to the written word. Common speech is the well-spring of all the power, of all the music, of all the intellect in literature.

In teaching a child to recite with correctness and feeling any one of the small great poems of the language, you put his soul into relation with the whole world of art; you release into him the magic of the universe; you open to him a new heaven and a new earth. You affect his physique, his digestion, his bearing, his manners, his moral sense. You sharpen his senses; you excite his ambition; you reveal him to himself.

It is the child of eight that responds best to artistic appeal; for a child up to the age of twelve is a symmetrical creature, plastic,

obedient, imitative. He gives the proper gesture by instinct; for his body is, as yet, a part of his mind. His body records impressions and has a memory of its own. If you teach him to do a thing properly on one day he will repeat it on the next day mechanically. He is in a state of focalization from which new growth soon separates him; and not till he attains maturity — perhaps at thirty, perhaps at forty — will he again become so perfect a machine as he is in midchildhood.

Growth is always unequal. The mind takes a shoot in one direction, the legs in another. The average boy or girl of fourteen can no more make an appropriate gesture than he or she can fly, unless such child has been trained in the early period. This is the secret of all the fine arts. The vehicle must become a part of the individual before the state of expansion begins. In the old French Régime, where minuet dancing was practised as a kind of religion, the children began dancing lessons at four or five; without this, the requisite standards of grace were unattainable.

Perhaps some one will think that I have used high-sounding language and that I am dealing with questions which our public education can not take up. But the A B C of the matter is simple and can be taught. It is not unlike the A B C of dancing, which consists in learning steps. Every word in the language is an entity, a sound that can be understood, learned, mastered, correctly given, assimilated as a habit, taken up into the unconscious, till it becomes a part of the brain and of the being, and sounds upon the lips without an effort.

The articulation of words can be taught as easily as the musical scale is taught; and it can be taught to whole classes at once. Indeed, the experts have found that it is easier to teach a class than a single child in the matter of sight singing, which is, after all, but another branch of vocalization. By giving twenty minutes a day to a primary class for six months, any set of children could be taught to speak or read aloud with a correctness and a natural intonation that would surprise their parents. I have no doubt but that Mr Rickard is going to teach

some of his six-year old children in the next few years to write better English than the graduating class of Harvard can write today. The youth in Europe are taught these matters; they do not speak well by nature, but as the result of training. These are questions of technic, and in dealing with all technic, important as it is, we know that deeper and more vital questions are always involved.

While language is made up of words, as dancing is of steps, and while words can be taught, we know that behind all there lies a general cultivation which can not be taught, but can be imparted only and grafted only through intercourse and through example. And the very sound of words, the inflection of the voice, the enunciation of the teeth and lips depend upon the spirit. It is this in the end, and not language, which we desire to give to the young ones. We choose language as the field of our activity because language is the spirit's first, nearest and most perfect vehicle.

The difficulties that lie in the way of introducing reforms in this matter are wholly practical, and resolve themselves into two. In the first place, our current speech is corrupted and degraded to an extent that has never existed in a civilized people before. Therefore we shall be teaching against the wind. Even your best pupils will speak properly in class, and relapse into lingo for the rest of the day. At least my children do this. They seem to be ashamed to speak like educated beings. It is at present *un-American* to speak correctly.

But this is a condition which time will cure. Every pupil whose ear is trained becomes resonant; he is a sounding-board that transmits harmonies, a tuning-fork that sets the rest in tune.

It was a lesson to me the first time I heard Doctor Finley speak. The sound of every good pupil's voice will be a continuous influence during the rest of his life upon all his contemporaries. Moreover, your best pupils will be apt to become our distinguished men and women, and spread the sound of good English into our courts, churches, theaters and political gatherings. Within twenty years your work will be apparent everywhere.

The second immediate difficulty is that of finding teachers; because, while the teachers exist, they exist here and there, lurking undiscovered, the relicts of an elder tradition. What we need in this matter is not a new thing. If you get a new thing it will be bad. We need the past, the old seed, the old art, the old cultivation.

If you wish to introduce good habits of speech into our public schools, you must begin with one man, one enthusiast, and he must be a man of the highest possible general education, and he must control and direct the whole movement, choosing his assistants as he finds them, one by one, and improvising his methods as he proceeds with the work until he has gathered a corps and a battery of his own. I suggested to Doctor Finley — and not in fun either — that he must himself take a class in the nearest public school, and leave the rest to natural law. That school would be famous in a month. Another enthusiast would turn up to watch Doctor Finley's methods. The amateurs — and they are many — who have this cause at heart, would gradually appear upon the scene, and the standards that Doctor Finley had set up would begin to form a living school, a living tradition.

It is no accident that we are met here today. You are the small voice of a great, conglomerate, inarticulate people that is at last waking to the need of saving our language — and this is much the same thing as saving the souls, of the American people. The other day I happened to mention at St Paul's School and at Groton School that I was coming to this conference; and at both places I was held up, as if with a pistol, and made to promise that I would come to those places immediately hereafter and report your proceedings to them. Some years ago Henry James wrote a pamphlet about this very matter — the slovenliness of the American speech. Mr James's own speech was not exactly of the sort that one would teach in an academy. It was a difficult dialect to follow; and his writing was in a style and idiom that mimicked his conversation. Mr James's labyrinthine manner of writing reflected, abruptly, perhaps, as he often perversely told himself (in a degree compatible with operative

charm) his own,—er—er—regurgitory habits of speech. Nevertheless, Mr James struck a big note and a true note upon the general subject.

The principal danger that lies in this whole movement is the danger of running into preciousity. All classes of people who take up the task of perfecting their own speech are apt to run to preciousity. The learned and the vulgar, the exquisite and the ignorant, the sophisticated scholar, the ambitious school teacher, the self-made man, the unmade man, the overmade man, are all apt to become a little absurd in their attempts to attain a correct speech. We must regard such cases as a by-product in a great search for truth; and we must by no means abandon the search because many men fall into pitfalls in the course of it, and even we ourselves may become castaways.

I am so convinced that your movement is real, important and destined to conquer, that I will offer but two words of advice: Go slowly.

REGENT ALEXANDER: In dramatic presentation the art of the pictured word and the music of the spoken word fuse into one combined appeal to the ear and the eye and the spirit of man. We are greatly honored tonight in the presence of one who needs no introduction to the American people, one known and loved of all for the magic appeal of her art, the beauty and grace of her person, the intelligence and idealism of her conception of the mission of her drama. Salome Jane, Merely Mary Ann, and her Constance and her Juliet are, alas, now merely memories, but the place in the high dignity and public value of dramatic art, which in large part inspires the creation of those deathless spirits, has remained. Mrs Belmont is not wholly lost to us for much of her time is spent in an unselfish endeavor to relate more closely the art she loves and practises with the imperative needs of today. I have great pleasure in introducing to you Mrs August Belmont.

## THE DRAMA AS A MEANS OF TEACHING

MRS AUGUST BELMONT

Language is our universal means of expression. There is no finite power greater than that of the "spoken word." It transports us in the twinkling of an eye from laughter to tears, and can carry our soul to heights or depths. The spoken word is like wind upon the ocean of our emotions.

But nothing is more elusive, more open to argument than the spoken word, permitting almost as many interpretations as there are listeners; herein lies its weakness.

Years ago, a wise friend admonished me during a fit of temper on my part, where my speech was *slightly* exaggerated, "My dear, take care, remember the *spoken word* is something over which you have no control."

An intellectual man recently told me that he considered the most beautiful thing in the English language was Lincoln's address at Gettysburg. I read it again to refresh my memory and was thrilled once more by the wonderful words, but I could not help thinking how much more wonderful the words must have been to those who were privileged to hear them, at the moment when their dramatic significance was heightened by the tragedy of war, and *spoken* by that great and moving personality. We are told "the pen is mightier than the sword." The "spoken word" has the might of the pen with the added force of the speaker's personality behind it; herein lies its strength. Truly, in no other country is the freedom and *power* of speech more clearly demonstrated than in our own. One can not help marvelling at times that the freedom should be so abused and the power remain the same.

Considering the power of speech, the scant attention we, in this country, pay to it seems incredible.

It is often said the English language is not beautiful, but truly it is more "sinned against than sinning." Errors in diction and enunciation are more frequent than grammatical errors.

English as a language suffers very seriously from the slovenly manner in which it is spoken.

We live in an age of progress, and nowhere is it more noticeable than in the field of education; the world is absorbed in reform; it has laid a firm and determined hand on education and even penetrated to the realms of spelling. But our speech, though sadly in need of reformation, seems to wend its careless way unchecked. In French, forming a liaison between words beautifies the language, but in English this continuity of sound from the final letter of one word to the initial letter of the next is responsible for such expressions as "don'tchew care," "It wuza lovely party." When the cockney-Londoner drops his H's we laugh; but we drop ours. Have you ever noticed how few people sound the H after W? And "whether" becomes "bad weather" all too easily. There is much talk of phonetic spelling. Alas for the English language if the phonetics indulged in by some of us should become the spelling for all of us!

What produces this lack of interest in our language? A student of French immediately desires to take lessons in diction, but we treat our own language simply as the servant in the house and for utilitarian purposes.

The French claim gesture is a language to express ideas that are not written, and one prepares you for the other, on the theory that "words are women, deeds are men," the spoken word gains in strength through a happy marriage with action; hence, the forcefulness of the drama as a means of expressing ideas. Of all the arts, the drama is most immediately productive of effect.

Music, the ever popular, is a form of expression, the drama is life itself, and the theater is the universal playground. It has always seemed so short-sighted to me, considering the millions of dollars we spend a year for this national pleasure, that we do not demand a better return on our investment. Once upon a time when I played Juliet with an all-star cast, the smallest parts were played by men who had been Romeos and Mercutios

of a previous generation or two. I was appalled by their references to "traditional business" and "traditional readings"; so, with the intolerance of youth, I wrote an article entitled "Hang up Tradition." Today I know there can be no deep or lasting art without the background of tradition; and how can we uphold the traditions of our classical and literary drama without a municipal theater?

The modern tendency to disregard tradition is nowhere more evident than in the theater. The younger generation of players knows little or nothing of how to read blank verse and with Shaksperean parts they either lose the meaning while struggling with the monotonous tone by which they feel verse should be interpreted, or by excessive modern naturalness absolutely overlook the cadence of the verse. To reach any art in the theater a standard is necessary, and there can be no standard without the classics as a background and comparison.

The big cities of most of the important European countries have their municipal theaters and continuously supply their citizens with artistic drama at the lowest possible cost. Our states spend millions on libraries, music, picture galleries, educating the public in various ways, whether it likes it or not (for appreciation of education is apt to follow the feast itself). Meanwhile, they utterly neglect one of the most vitally important means of education. However, as the people in this country usually get "what they want when they want it," I presume when the demand is sufficiently urgent for a municipal theater we shall have one. Meanwhile, we must uplift not the stage but the taste of the public, because, as Garrick said in his speech the opening night of the Theatre Royal in 1747 —

"The Drama's laws the drama's patrons give  
For we that live to please must please to live."

The blame for any deficiency on the part of our theater is placed at the door of the actor, author or manager, forgetting the fact that to have great poets we must have great audiences.

The drama as a profession is undergoing a critical test at the

present moment. The moving pictures have captured a vast proportion of the theater-going public, and the result will be as if the philosophic law of "survival of the fittest" had been applied to the stage world. But I feel very decidedly that, what for the time being seems cruel to the drama as a profession, may be the salvation of the drama as an art. It will eliminate those followers who have joined it simply because they "couldn't think of anything else to do," or because admiring friends were "sure they had talent." Some years ago I went to a performance of "Julius Caesar," given by a group of East side settlement children. Caesar's wife was certainly above suspicion of any histrionic ability. Her accent and gestures reminded me more of a "Mama-papa" doll out of order than anything human; but, "Rosy" had friends in front, and one admiring girl friend who talked, chewed gum and applauded vigorously and indiscriminately throughout the performance, said, "My heavens, catch me sittin' in a telephone office, if I had Rosy's talent. I'd go on the stage."

The treasurer of a moving picture concern published a statement three years ago saying that fifteen millions of people a day attend moving picture theaters, and one out of five of their patrons are children. The general trend of our pleasure seekers is toward the dance halls, cheap theaters and moving pictures. The posters of these last named are lurid enough to be the foundation of a new school of art. I have selected a few titles of recent attractions which are fairly typical: "Mike's Brain Storm," "The Matrimonial Deluge," "Drink's Lure," "Willie Wants to Cure His Father," "Training Their Parents," "The Fringe of Sin."

Just how far the moving pictures will supplant what is called legitimate drama, it is difficult to prophesy, but I can not for a moment believe they will endanger the real life of the theater. Moving pictures may be of immense educational value; they even produce a deep emotional effect, but it is doubtful if they can supplant the human equation or provide a substitute for the god personality. I can not believe a shadow or a screen will

ever be as dear to our hearts as Ada Rehan, Forbes Robertson, Duse or dear Ellen Terry. With a few brilliant exceptions our stage has been surfeited with inferior performances of inferior plays, supplying the general demand of the public for entertainment. Now, at the movies, they can secure better entertainment for less expenditure, and with the collapse of the present scheme of things I hope and believe there will rise from the ashes a new and genuine art of the theater in this country. Worth-while plays do not necessarily mean the brand stamped "high-brow," but plays with originality of conception and some literary merit — not a warmed-over mixture of last year's successes founded on the same plot, same title, like so many suits for the season, cut to the measurement of size 38 or 40. It may be correct in government, but it is crippling to *any art* to apply to it the law of majority rule, and a commercialized drama must be this.

Consciously or unconsciously, the drama has always played an important part in education. In the first period of its existence it was entirely educational. The main string of the early Christian drama had its direct source in the liturgy of the church.

The dramatic instinct is in all of us, and I believe we have not yet discovered its full usefulness as a means of self-improvement. We hear there is no school like the school of experience. Well, playing of parts can be experience in living. Without investigation, no one realizes how numerous are the amateur dramatic clubs all over the country. Especially in the public schools are they developing the value of dramatics. Many of our children speak little or no English in their homes; when they do, it is not, strictly speaking, English, and the teachers find the best way to make them watch their pronunciation is to "speak a piece."

The mere putting on of a play for school children and wage earners may be a complete waste of time; whereas if at the same time they learned to speak well, to think, to discover a broader horizon for their ideals and a better understanding of their own responsibility and relation to their fellow man, drama has indeed found a useful place in education. When I was about fifteen,

an old family friend of whom I stood in awe, asked me when I should be graduated from my convent school. I replied that I expected to finish school in another year. He smilingly said, "*Finish*, indeed; education only begins when you leave school." I should have been somewhat discouraged had I believed this. As it was I felt tolerant because it seemed to me he could not know how much I knew.

Four years ago I helped to found the Educational Dramatic League, which had for its purpose to raise the standard of amateur dramatics, promote its value to the community, and by example, advice and active assistance, help those who spend time, money and energy on producing plays in schools, churches, settlements, anywhere in fact. We have a club membership of two hundred seventy-five; we reached in New York City last year alone over six thousand players. We have, ourselves, given some twenty-five performances of fourteen plays. We have chaperoned and actively assisted in approximately one hundred seventy performances. Among the plays produced have been "*Nathan Hale*," "*Twelfth Night*," "*The Pied Piper*" and Tagore's "*Post Office*."

In addition to this we have two clubs of blind children and one for the deaf and dumb. But the great problem has been to find teachers. This year we have established a teacher's training department, and we feel we are better equipped than ever before to render first aid to dramatics.

We have a library and a play-reading committee selecting and cataloging plays for the use of our members. Hundreds of plays are read and almost as many rejected. It is bewildering to see the mass of maudlin sentimentality, senseless stupid twaddle which is compiled under the heading "plays for amateurs."

To produce a play educationally means that the preparation, not the production, is the important factor. No player should be taught a reading or gesture; each part becomes a creation, not an imitation. They learn to breathe well; praise be! their manners are improved and above all their speech; some even

take special courses in English in order to speak correctly in their parts.

This work appeals to me strongly because of the assistance it offers boys and girls, especially those just out of school, thousands of whom are forced immediately to take up the practical, money-getting side of life. It is this gigantic mass of young wage earners who form the bulwark of our country, whose breadth of understanding, taste and ideals very largely govern our affairs, and to whom we must look for the support of our arts as well as our industries.

To a vast number, entertainment that must be paid for is prohibitive; more and more eight hours is becoming the established working day and the problem grows of providing helpful recreation for our citizens. As Jane Addams says, "We can't prevent people from amusing themselves badly unless we show them a better way." Miss Addams tells of a poor little Italian girl in Hull House neighborhood who battered her head against the wall so long and vigorously that she had to be taken to a hospital for her injuries. As nearly as dull grown-ups could understand, it had been a hysterical revolt against "factory work all day and no fun in the evening." Can we not utilize this desire for self-expression, turn it into a means of healthy, perhaps artistic, development, helpful alike to the individual and the country? Catch such youths as these before they leave school or just after becoming wage earners, steady their ideas, appeal to their imagination, let them play at being the finest heroes and heroines the world's history and literature have produced. Nothing is too good for the amateur to attempt.

The first step toward the drama is the assumption of character, and I believe firmly that this assumption, study and understanding of heroic characters is bound to leave an impression on the mind of the player. We are all, more or less, unconscious mimics, effected by environment, and much of what we know has been acquired by absorption.

It is not the memorizing of bare facts, facts to be repeated parrotlike, that constitutes education. Education means more than a percentage of knowledge of the three R's; it means training the young to *think*, and equipping them to think is the best foundation toward equipping them to live. Today, an average education is essential in almost every business or walk of life; and every additional gain of knowledge has its commercial return. The preeminent call of the time is for more and more education, yet I can not help feeling one of the principal reasons for the much discussed "unrest" among all classes is "undigested education"; but that is another story!

In this land of multitudinous nationalities and languages, where statistics say less than 20 per cent of our ninety million inhabitants are American-born, where each year we admit on an average one million immigrants, we are in dire need of some interesting and speedy way to establish an understanding of our history, our ideals, our patriotism, our language even. When we say patriotism, we are apt, unconsciously, to overlook the fact that patriotism does not necessarily mean to fight and die well, but to work and live well, for one's country. New York is the most wonderful state in our Union, generous to a degree: generally speaking, I am proud, enthusiastically proud of our Empire State, but let us confess she is sometimes shortsighted and does at times muddle her values. Why could we not have in New York an educational theater dedicated to our history, literature, our "spoken word"; an educational theater devoted to the youth of our State and under the wing of the State University, for I am confident the State University has wings.

There is a strong, new movement in the theater today, which includes new lighting and scenic effects. I am happy to say the pendulum has swung back from the extremely realistic, and the new movement stirs and calls upon the imagination of the public. The human eye is limited, but the imagination is boundless.

Our beloved Shakespere realized the important part the imaginative faculty of the audience must play to round out the

perfect illusion of a performance. In King Henry V, the chorus, acting as a prologue to the play, says:

And let us, ciphers to the great accompt,  
On your imaginary forces work.  
Suppose within the girdle of these walls  
Are now confin'd two mighty monarchies,  
Whose high-upreared and abutting fronts  
The perilous, narrow ocean parts assunder.  
Piece out our imperfections, with your thoughts;  
Into a thousand parts divide one man,  
And make imaginary puissance.  
Think, when we talk of horses, that you see them  
Printing their proud hoofs i' the receiving earth,  
For 'tis your thoughts that now must deck our kings,  
Carry them here and there, jumping o'er times,  
Turning the accomplishment of many years  
Into an hour-glass; for the which supply,  
Admit me Chorus to this history;  
Who prologue-like, your humble patience pray,  
Gently to hear, kindly to judge, our play.

The Irish poet Yeats says, "Adam had but to imagine a bird and it straightway sprang into life, he created all things out of himself by an unflagging fancy."

We are told, "Necessity is the mother of invention." This must be a case of mistaken identity. To me, necessity is more like a stern father with rod in hand. I believe *imagination* to be the mother of invention.

**REGENT ALEXANDER:** It is my painful duty to bring the audience back to earth again, and to remark that it would be idle to deny that actual speech has been greatly influenced by mechanical inventions, and especially by the telephone. You all recognize immediately the art of a man who speaks accurately, tersely, effectively, over the wires. This is especially marked in the use of the long distance and transcontinental tele-

phones. With the improvement of the instrument and the increasing range of the voice, must go a refinement of telephone speech. We are favored tonight in having with us a man who has contributed beyond all others to the perfection of the trans-continental telephone and to the wireless telephone, and who is now concerned that human speech may be made equal to the demands of the perfected transmitter and receiver. I have the pleasure of introducing Dr John J. Carty.

## THE EXTENSION OF THE SPOKEN WORD

J. J. CARTY LL. D.

*Chief Engineer, American Telephone and Telegraph Company*

We are living in a time of great and terrible events which come upon us so fast that the mind can hardly cope with the chaos of things which impinge upon it. In this, more than in any other age, it is impossible to judge correctly concerning contemporary affairs and to appraise them with a true sense of their relative value. Nevertheless, I want to believe that centuries hence the historian of our period, with a perfection of method now unknown, studying and analyzing the underlying forces, the movements and the achievements of our times, will not cover all his pages with the story of our wars and of our agencies of destruction, but that he will devote his brightest chapters to tracing back to our days and to our country ethical and scientific movements which he will demonstrate have worked most potently for the welfare and for the peace of mankind. I am sure that our historian will find it noteworthy that amidst the carnage of a war covering nearly all the world, there was held here today in the city of Joseph Henry, the great American electrical scientist, a convocation of learned men and women of this great University devoting themselves at such a time to the study and improvement and extension of the spoken word.

The use of the spoken word to convey ideas distinguishes man from all other created things and the degree of its development

among nations is a good measure of the advance they have made in civilization. For their achievements in the spoken word Greece and Rome have placed among the immortals the names of their greatest orators, and in modern times the nations have assigned to their masters of speech a foremost place.

I am sure that the historian will accord to our country the first place among the nations of the earth for its contributions to the extension of the spoken word throughout both space and time. With the names of Demosthenes and Cicero he will inscribe the names of Bell and Edison for their immortal achievements, the telephone and the phonograph, the one transmitting the spoken word across continents and oceans and the other preserving the recorded tones of the human voice for ages of time to come, to be spoken to generations yet unborn. It is with feelings of just pride that today we hear of the wonderful achievements of our country in the spoken word.

Because of conditions beyond his power to control, Dr Alexander Graham Bell, the inventor of the telephone, is unable to participate with us at this convocation but it is a great pleasure for me, and an honor too, to be the bearer of a message of appreciation and good will from him to your President and to this University. But while Doctor Bell himself can not take part, the evidences of his genius are here to represent him and you will perceive them in manifold and wonderful ways.

Of all the men who have ever lived it remained for him to found the art of transmitting speech electrically. It was he who revealed to mankind the method of electrically transmitting the tones of the human voice to distant places. He was the first to provide the apparatus to do this marvel, and he was the first to speak through the electric speaking telephone. His voice was the first to be heard in the form of the spoken word in the telephone receiver.

But while Doctor Bell's voice was the first to transmit the spoken word electrically, his ear was not the first to hear it. The first spoken word to be heard in the electric telephone was heard and understood by Thomas A. Watson, that gifted youth who

was the associate of Doctor Bell and who, acting under his direction, constructed for him the first telephone instrument and built the first telephone line, through which he himself heard the first telephonic spoken word.

It is a matter of historic importance and a cause for gratification that we are to hear tonight in Mr Watson's own wonderful spoken words the story of the invention of the telephone. You will hear these spoken words not only from Mr Watson's own lips, for he is to address you in person, but you will also hear them reproduced by the phonograph of Mr Edison, operating in perfect synchronism with a wonderful motion picture of Mr Watson taken by means of another of Mr Edison's marvelous inventions; so that had it been impossible for Mr Watson to be here in person, by the genius of Edison we could have heard his voice, seen his form and learned from his phantom lips the romantic story which he has to tell.

Our regret that Mr Edison can not be present here in person tonight is tempered by the pleasing thought that by means of the telephone, the invention of his fellow immortal, Doctor Bell, he can participate in these ceremonies. He can hear what we have to say to him and we can listen to his spoken word.

We must all feel a patriotic thrill to hear the voice of Edison by means of the telephone of the immortal Bell, and to hear the voice of Watson through the phonograph of the immortal Edison. As long as men can speak, these names will be spoken with honor and with praise and as long as men can hear they will listen with wonder and with gratitude to the story of their immortal achievements.

Forever associated with the name of Bell must be that of Theodore N. Vail — a man of pure American stock and pure American ideas, among the foremost today of American citizens. Our historian will record him among the great men of the world as the master of electrical communications and of agencies for the transmission of the spoken word.

More than any other the art of electrically transmitting the spoken word is a product of American institutions and reflects the genius of our people. The story of its wonderful development

is a story of our own country. It is a story exclusively of American enterprise and American progress, for although the most powerful governments of Europe have devoted their energies to the development and operation of telephone systems, great contributions to the art have not been made by any of them. With few exceptions the best that is used in telephony everywhere in the world today has been contributed by workers here in America.

The two telephone instruments used by Bell and Watson in 1875 have become many millions by 1916, and the first telephone line, a hundred feet long, has grown to one of more than three thousand miles in length. This is but part of our country's telephone system of twenty-one million miles of wire connecting more than nine million telephone stations located everywhere throughout the United States and carrying the spoken word to one hundred million people. Universal telephone service, transmitting the spoken word throughout the length and breadth of our land, the early dream and the life-long grand objective of Theodore N. Vail, has been attained.

Although Mr Vail is not here in person tonight, yet by means of that unparalleled system of communications which has been built up under his leadership, he will transmit to us here from New York his words by telephone and you will see from his message that his vision of the future is grand and peaceful and based upon the transmission of speech beyond the vast boundaries of our own country out to the uttermost ends of the earth, breaking down the barriers to the spoken word and preparing the way for a good understanding among men. It is not distance from one another which has produced differences of language among nations; it is lack of intercommunication. It is the failure of the spoken word to penetrate their boundaries.

No one can tell how far away are the limits beyond which it is impossible to transmit the spoken word. I believe that they are not to be found here upon the earth. I have faith in the fulfilment of that prophetic aspiration expressed so often and so eloquently by Mr Vail, that we will some day build up a great world telephone system, making necessary to all the nations the use of a

common language or a common understanding of languages, which will join all the people of the earth into one brotherhood. I look forward to the future with a feeling of exalted confidence that the time will come, so poetically described by your distinguished President,

“Wherein each earth-encircling day shall be  
A Pentecost of speech, and men shall hear,  
Each in his dearest tongue, his neighbor’s voice  
Tho’ separate by half the globe.”

REGENT ALEXANDER: “Mr Watson, come here, I want you,” was that immortal message which reached the ears of Mr. Thomas A. Watson forty years ago, and substantially that same message was sent in only the other day by The University of the State of New York. He has honored us by responding to that message and will now address you on “The Telephone and the Spoken Word.”

## THE TELEPHONE AND THE SPOKEN WORD

THOMAS A. WATSON

I am asked to tell you about the discovery of the telephone, in which important event I had the honor to play a part. The telephone was discovered a little over forty years ago — in 1875. At that time the state of the electrical art was vastly different from what it is today. For instance, there was not a practical electric motor in the world. There was not a dynamo. There was no electric lighting. There was none of the immense variety of apparatus now made in our great modern electrical workshops.

Forty years ago, about all the electrical apparatus that was made consisted of telegraph instruments, call bells, annunciators and such things. This meager list of electrical instruments was manufactured in perhaps a dozen little shops scattered throughout the United States, none of which employed, with one or two possible exceptions, more than 25 or 30 men. Some

forty-four years ago I, as a boy of thirteen, entered one of those little electrical shops in Boston to learn the business. I worked there some three years, and during that time made myself master of nearly the entire art of electricity as practised at that time.

To Williams's shop, in which I worked, a constant stream of wild-eyed inventors came to get their ideas tried out in working models, and in 1874 my work at Williams had become largely making experimental apparatus for these men of visions. Very few of their ideas ever amounted to anything, and I became exceedingly skeptical as to the value of electrical inventions as so many of the things I worked on were such complete failures. But all the men I worked for were not of this type. One day in the winter of 1874-75, when I was hard at work on some such experimental apparatus, there came rushing out of the office door and over to my bench, a tall, slender, quick-motioned man with a high sloping forehead crowned with bushy jet-black hair. It was Alexander Graham Bell, whom I saw then for the first time. He was bringing to me a piece of apparatus which I had made for him under instructions from the office. It had not been made as he desired and he was coming to me to have it altered. It was a receiver and transmitter of what he called his "harmonic telegraph," an invention by which he was then trying to win fame and fortune. It was a simple affair by which, utilizing the law of sympathetic vibration, he expected to send six or eight telegraph messages over a single wire simultaneously without conflicting with each other. I have one of his harmonic receivers in my hand. Its essential features are an electro magnet and a flat piece of clock spring. One end of the spring is clamped to a stout post with its other end free to vibrate over the pole of the magnet. The transmitter was quite the same with the addition of a contact screw, so that when the electric current was connected its spring was kept in constant vibration, producing a disagreeable nasal drone of a pitch corresponding to the pitch of the spring. This made and broke the circuit and so sent through the line wire and through

the distant receiver a rhythmically intermittent current which would cause the spring of that receiver to respond if it was tuned to the pitch of the transmitter spring. There were six transmitters each with its spring tuned to a different pitch, and six receivers with their springs tuned to correspond. When we first tested them Bell was much surprised to find that they did not operate so well as he had expected. I was not a bit surprised, for I had never seen anything electrical yet that had worked at first as the inventor wanted it to. It did not, however, discourage Bell but he kept on studying the thing and I had a steady job that winter helping him develop his harmonic telegraph.

All this time Bell had another big idea germinating in his head. I shall never forget the evening when he first told me of it. We had gone to the shop after the workmen had left, as we often did, in order to test some modification of his harmonic telegraph. I suppose I was looking discouraged over the difficulties that presented themselves and, perhaps, to cheer me up, he said to me, "Watson, I have another idea that I think will astonish you." I listened, I fancy, rather languidly, for I had heard so many of his ideas in the year I had worked with him that I did not pay much attention, but when Bell went on to tell me that he had an idea by which he was sure he would be able before long to *talk by telegraph*, I can assure you my nervous system got such a shock that I began to take notice of what he was telling me. I have never forgotten the exact words in which he stated his theoretical conception. He said, "If I can make a current of electricity vary in its intensity, exactly as the air varies in density when a sound is passing through it, I can transmit by such a current any sound, even speech." He then went on to describe an apparatus that he thought would do this. It was never constructed. It was as big as an upright piano and was obviously so expensive that his financial backers were not willing to pay for it, so we went on working on the harmonic telegraph which seemed to work worse and worse the more we experimented with it. In the spring

of 1875 it was behaving so badly that Bell himself began to get discouraged over it. But that was the dark hour just before a bright dawn.

June 2, 1875, is the most important day in the history of the telephone, for on that date the harmonic telegraph through its very perversity revealed to Bell a method by which he was able to realize his old dream — talking by telegraph. I will try to tell you just how it happened. Bell had found that one reason why his harmonic telegraph messages got mixed in sending was inaccuracy in the adjustment of the pitches of the transmitter springs to those of the receivers. Bell always did this adjusting himself and he fortunately had a peculiar way of doing it; he used to press the spring of the receiver against his ear while I, in the other room, was sounding the transmitters one after the other. He could, by doing this, hear in the receiver the nasal drone produced by the intermittent current coming from the transmitter and by lengthening or shortening the spring he was pressing against his ear he could bring its pitch into accord with that of its transmitter.

On June 2, 1875, Bell and I were up in the attic of Williams's shop working on that same old perversity, the harmonic telegraph, and it seemed to me that it never worked worse than it did that afternoon. Bell was in one room tuning up the receiver springs, pressing each of them against his ear as I have described. I was in the other room sounding the transmitters as usual. One of the transmitters stopped vibrating and I plucked its spring to start it going. It did not start, and I kept on plucking it. Suddenly I heard a shout from the other room and out came Bell demanding what I had done. "Don't change a thing," he said. "Let me see just what you did." We looked it over and found that the contact screw of the transmitter that would not start had become welded to its spring, so that when I snapped it the circuit was not broken, and the harsh intermittent current did not flow through the wire, but the vibration of that steel spring over the pole of its magnet was producing that wonderful conception of Bell's — an electric

current varying in its intensity exactly as the air was varying in its density anywhere within direct hearing distance of the sound of that spring. That exceedingly feeble electric current had passed through the wire into the other room and through the receiving instrument, which was fortunately an apparatus that could transform that current into an exceedingly faint reproduction of the sound that had generated it, but what was vastly more important was that the right man had that apparatus at his ear during that brief moment and instantly recognized the tremendous importance of the phenomenon that he had observed.

I do not believe there was another man in the world at that time who, had he heard the sound, would have paid the slightest attention to it. When I listened to it myself later in the day, I wondered that Bell had heard it at all. He had been thinking of that very thing for years and so knew what it meant when it presented itself to him. The telephone really had its birth at that moment, for Bell knew very well that the apparatus that could transmit all the delicate overtones of one sound could do the same for any sound, even that of the human voice.

We spent the afternoon repeating the experiment with springs of different sizes and shapes, and before we parted that night Bell sketched for me the first speaking telephone. It was very simple. I was to take one of the harmonic receivers with its magnet and spring, set it on a baseboard with a tightly stretched drumhead of parchment over it, connect the center of the drumhead to the free end of the spring and arrange a mouthpiece on the other side of the drumhead so that the vibrations of the voice striking the drumhead would force the spring to follow the vocal vibrations and generate in the magnet a corresponding undulatory electric current.

I went to the shop the next morning as soon as possible and rushed two of the telephones to completion. I made every part of them myself but not for a moment did I realize what a tremendously important piece of work I was doing. This is a duplicate of one of those first telephones (holding up the apparatus). Here is the receiver of the harmonic telegraph

with its little spring and its magnet. Here is the stretched drum-head connected to the end of the spring. The hole in the base-board is the mouthpiece for condensing the voice on the drumhead.

I finished the telephones before night and that evening Bell came to the shop to test his new discovery with me. You may be sure it was an intense moment for us when we were connecting up the telephones to the wire I had run for the purpose of the test. But I have always been sorry for Doctor Bell because I got so much more satisfaction out of that first test of the speaking telephone than he did. Shout my loudest I could not make Bell hear a sound, but I could hear his voice and almost catch a word now and then. When I found I could not make him hear I rushed upstairs and told him just what I had heard. Of course he was very much disappointed and I was too, for we both expected to talk as well through the telephones as we could face to face, and this was a meager result compared with our expectations.

Here is where the subject of the evening's discussion — the spoken word — is connected with the discovery of the telephone. The reason why Bell could not hear me and I could hear him was the vast superiority of his splendidly trained voice over any sound that my then undeveloped voice was able to utter. Bell was a trained elocutionist. His father, Melville Bell, was one of the world's leading elocutionists. Probably if Bell's voice had been as poorly developed as mine, neither of us would have heard a sound on that first test and possibly Bell might have been so discouraged that he would have set the experiment down as a failure and not tried it again. Fortunately his voice was resonant enough to generate a current of electricity strong enough to vibrate the telephone I was listening to, so that I could hear it, and from my statement as to what I heard, he knew he was on the right track. He devised some vocal exercises to strengthen my voice which quickly brought it up so that in subsequent experiments he could hear me as well as I could hear him.

I have told you of the very beginning of the telephone. After this discovery Bell and I worked together two years to make it practical for public use — a period full of fascinating interest, but my time is up and I can not follow the subject farther tonight. The experimental work Bell and I started in 1875 has never ceased for a moment since that time. It has been carried on by an ever increasing group of trained electricians and physicists who have developed Bell's epochal invention into the marvelous telephone system that has covered the country and made its use almost universal and of whose latest accomplishment, transcontinental telephony, you are now to have a demonstration.

**PRESIDENT FINLEY:** We shall now have the talking moving picture, and Mr Watson will repeat his lecture on the screen.

[Moving pictures were then shown of Mr Watson delivering the same lecture which he had just delivered.]

[At this point in the program occurred a demonstration of the transmission of the spoken word by long distance telephone. Through the courtesy of Doctor Carty and his associates of the American Telephone and Telegraph Company, telephone connections were made with the auditorium of the Education Building. A receiver had been installed at each seat, enabling every person in the audience to hear the conversations that followed.]

**PRESIDENT FINLEY:** I think I ought to say before we begin this part of the program that we are indebted to Doctor Carty and his great company for this educational experiment. It is purely educational; it is not commercial.

[The following then occurred, everyone in the room having a telephone receiver]:

**MR FINLEY:** Hello, Chancellor Sexton?

**CHANCELLOR SEXTON:** Hello.

**MR FINLEY:** Is that Chancellor Sexton?

**CHANCELLOR SEXTON:** Yes, Doctor Finley.

MR FINLEY: We have desired, Mr Chancellor, to have you, above all others, present at this Convocation, and we wish to be assured that you are here in thought and word, even if you can not be seen by us. Will you not give us this agreeable assurance by some spoken word?

CHANCELLOR SEXTON: Great has been my discontent at being kept away from you and our good friends at this notable Convocation of our University; but, happily, I am made to realize, by the kindness of your greeting and the music of your voice, as it has just come to me over the long wire, that I am, and am to be, with you, after all.

Naught could ever separate us but space, and that has now been annihilated by the genius of those whom we would this evening especially honor.

It is not for me, however, upon this occasion, to amplify, or much specify, or to seek to guide the trend of thought; that is the assigned duty and privilege of others; but, while with great fitness, and particularly here in Albany, we shall be rendering merited meeds of praise to that departed chieftain in the pioneering development of electrical science, Joseph Henry, and to his distinguished living pupils and willing disciples, Doctors Edison, Pupin and Carty, and their worthy colaborgers, and shall gratefully congratulate ourselves upon the wonderful extent to which they have been our benefactors, we shall not, I am sure, fail to recognize, still more gratefully and reverently, that they came to earth with appointed missions, as benefactions bestowed upon mankind by Him from whom all blessings flow.

MR FINLEY: Thank you, Chancellor, we heard every word. Good night and pleasant dreams to you.

CHANCELLOR SEXTON: Same to you, and again good night to you and our friends there, one and all who are assembled now.

MR FINLEY: President Wheeler? Hello. President Wheeler, how are you?

BENJAMIN IDE WHEELER: Very well.

MR FINLEY: Mr President, The University of the State of New York is celebrating at its annual Convocation tonight the use, the reach and the power of the spoken word. The State remembers with satisfaction that you were once of its teachers and wishes to hear again the sound of your eloquent voice, though you are 3000 miles away.

PRESIDENT WHEELER: I am glad to be present again at an old-time Convocation. It calls up charmed memories of happy years spent under the aegis of the Empire State and of blessed associations with men who held the gift of personality. One of these was Hiram Corson. In the first doctoral examination in which I participated at Cornell I shared with him the duty of examiner. The major subject was Anglo-Saxon. I examined in linguistics, and along with others plied the poor, pale candidate with arid philological questions. With a struggle Professor Corson held his peace, until, at the conference following the examination, he passed judgment on the candidate with a side-stab at my philology.

"This candidate," he said, "will never make a really good Anglo-Saxon scholar; he hasn't the voice for it."

Corson was once asked which was the right pronunciation *herth* (hearth) or *harth*. "They are both right," he replied, "but *harth* is warmer."

He knew as I then did not, that the human voice is the directest expression of personality. We unconsciously assume to interpret character, to like and dislike, to trust and distrust according to the tones of the voice. We form a pleasant judgment based on the expression of the face and then overturn it when we suddenly hear a rasping, whining voice, issuing from the midst thereof. The voice is certainly by nature the best native representative of total personality. The place of voice in education is therefore well determined by a fact we never can escape, no matter how we frame curriculums or multiply machinery, namely, that direct personal influence is the very heart and life of education.

Every teacher should be trained in the acquisition of a pleasant, musical and adaptable voice. The English we want taught in the schools is the English of the tongue rather than of the pen. We are coming indeed to speak our manuscripts rather than write them.

Literature should be read aloud to yield its best; so only can verse, or for that matter good prose, assert its rhythm and power of words. The ancient Greeks always read aloud even when "reading to themselves."

The use of stenographers and typewriters and of telephones is bringing us surely back to the old rule of the living voice. Evidences multiply on every hand of a return to the standards of oral language after generations of submergence under the formalisms of writing and printing. The scrawls which issue from our schools of the day indicate that we are forgetting how to write as we have already forgotten how to spell. Writing and spelling seem to be on their way back to the scribes.

The size of the ancient city, Aristotle says, was limited to the reach of the herald's voice. This latter-day development of the telephone has given the human voice like reach with the nation, and restored it to its ancient potency as the chief instrument in building the social community among men.

My blessing on The University of the State of New York.  
Good night.

**MR FINLEY:** Good night, Doctor Wheeler. We miss only the sight of you. We have heard your voice well. There are a thousand of us here.

**DR CARTY:** Hello, Hunter.

**MR HUNTER:** Hello, Doctor Carty.

**DR CARTY:** Hunter, I wish to have you say a few words so the audience here can hear you; what is the weather there in San Francisco?

**MR HUNTER:** I am over at Oakland right now, at the Berkeley. The weather here is exceedingly cool this evening. The temperature I should say is about 68 degrees.

DR CARTY: What time is it there?

MR HUNTER: It is now 7.22 exactly by my watch.

DR CARTY: Has the sun set there yet?

MR HUNTER: Oh, yes, the sun set about 45 minutes or an hour ago.

DR CARTY: So it is dark, is it?

MR HUNTER: Yes, it is dark.

DR CARTY: I am much obliged to you. Now I am going to call the roll to see how things are along the line.

[A voice]: Hello Albany, Doctor Carty?

DR CARTY: Yes, sir.

MR FARRAN: This is New York, Doctor Carty.

DR CARTY: Thank you, Mr Farran.

MR FITZPATRICK: This is Pittsburgh.

DR CARTY: Thank you, Mr Fitzpatrick.

MR MEEHAN: This is Chicago.

DR CARTY: What is the weather there in Chicago?

MR MEEHAN: The weather right now is rainy. It is raining very hard. The temperature is about 38 now.

DR CARTY: Thank you. Omaha?

MR CUTLER: This is Omaha, Cutler speaking.

DR CARTY: Hello, Denver?

A VOICE: This is Denver speaking.

DR CARTY: What is the weather there in Denver?

A VOICE: The weather is 40 above and cloudy.

DR CARTY: What is the altitude?

A VOICE: The altitude is one mile high. We do not measure altitude in terms of feet here.

DR CARTY: Salt Lake City?

MR ANNESLY: This is Salt Lake City, Doctor Carty.

DR CARTY: How is the weather with you?

MR ANNESLY: It is cold tonight.

DR CARTY: Winnemucca?

A VOICE: Hello, Doctor Carty, this is Winnemucca.

DR CARTY: How are things in Winnemucca tonight?

A VOICE: Tonight it is cold — 34 degrees.

DR CARTY: Is there much excitement there about the Convocation [laughter]? Much obliged.

DR CARTY: Hello, San Francisco; hello, Oakland.

MR HUNTER: Hello, Doctor Carty.

DR CARTY: I suppose the temperature is just about right over in Oakland, isn't it?

MR HUNTER: Yes, sir, it is about 71.

DR CARTY: Very much obliged to you, Mr Hunter, and to all the rest along the line; we are also very much obliged to Doctor Wheeler, and now say good night to you all.

DR CARTY: Hello, Mr Vail.

MR VAIL: Hello, Doctor Carty.

DR CARTY: Doctor Finley is here and will say a word to you; this is Mr Carty.

MR FINLEY: Hello, Mr Vail.

MR VAIL: How do you do, Doctor.

MR FINLEY: I am very well and I hope you are well.

MR VAIL: I am not well; I have a severe cold.

MR FINLEY: I hope you will have some message for us, Mr Vail, despite your cold. We have been hearing about you tonight.

MR VAIL: Steam broke down impossible distances and brought all the people of the world into possible association. The telegraph broke down prohibitive distances and brought all into close relations. Together, through the transportation, the intercommunication, and the interchange made possible by them, the whole world was brought nearer together, common interests were advanced, and the foundations of a worldwide brotherhood were laid.

That this is so, is evidenced by the surprise and consternation created by the possibility of such a conflict as is now in progress in Europe. During the centuries preceding such conflicts created neither consternation nor surprise; only possible regret.

The telephone has extended the possible use of the spoken word to continents, and will soon to all parts of the world. It will make necessary a common language or a common understanding of language. Does not this foreshadow that the common interests which will be created by the intimate relations following the intimate exchange of the spoken word will bring about a universal brotherhood?

MR FINLEY: Thank you very much, Mr Vail. I heard you as distinctly as when I sat at your side up in Lyndonville, Vermont. We deeply appreciate your message. Good night.

DR CARTY: We will now put on Mr Edison for you. Hello, Mrs Edison, this is Mr Carty talking. Doctor Finley will take the telephone now and speak to you.

DR FINLEY: How do you do, Mrs Edison? This is Mr Finley; are you ready?

MRS EDISON: Yes, we are all ready.

MR FINLEY: Mr Edison, on behalf of The University of the State of New York, which is endowed with power by the State to express its educational purposes within its own boundaries, I, sitting in a hall nearly two hundred miles from you, a hall lighted by the glowing filaments which you invented, employ an instrument which you had a part in perfecting, to express to you the congratulations and gratitude of this State for what you have done in making it possible to remember, to reproduce and to transmit the "spoken word," not only between neighbors, but between peoples separated by mountains or seas, to turn darkness into light, and to make vibrations reproduce their moving images in places as far from each other as the antipodes.

On behalf of the University representing this State, I have the honor to notify you that the Regents have unanimously voted to bestow upon you its highest degree, a degree conferred by universities of mediaeval times, a degree which the greatest universities of today have desired to bestow upon you, a degree of this University bestowed on Joseph Henry, but held by only one living man, Elihu Root, a degree which for the first time in the history of universities is conferred by means of that tele-victorian instrument whose worldwide use you have yourself made possible, the degree of doctor of laws, and is conferred upon you not *in absentia* but merely *in loco remoto*.

By virtue of the authority of the State and of the vote of the Regents of The University of the State of New York, I have the honor to confer upon you the honorary degree, doctor of laws.

MRS EDISON: I am taking the message for Mr Edison as he can not hear, but he will respond in person for the great honor conferred upon him tonight. We have some Honolulu singers here tonight and if you would like a selection over the telephone we would be glad to play for you after Mr Edison has talked.

MR EDISON: Your message is a source of much pleasure and gratification to me and I want to thank you and the Regents, representing The University of the State of New York,

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for your congratulations and the kindly sentiments you indicate toward me.

Let me express my sincere appreciation of the honor the Regents of The University of the State of New York have done me in bestowing upon me the degree of doctor of laws. I accept the honor thus conferred upon me and return my hearty thanks for this signal mark of your esteem.

[After Mr Edison had talked over the telephone, the audience were able to hear with distinctness the Honolulu singers.]

MR FINLEY: We have heard your voice and while you have been speaking your picture, Mr Edison, has been before us. You have indeed been with us. Good night.

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We are now to go to the top floor of this building to pay homage to an old school teacher in the Albany Academy who discovered the great principle that made possible those miracles which we have been witnessing tonight, and I hope that you will all go with us to see the image of that man which is some day to be put into bronze, the image of Joseph Henry.

We are deeply disappointed not to hear the voice of the Governor. It has been impossible to keep to the schedule arranged by minutes, but we hope to have him at our next Convocation. The audience all appreciate the situation, but we are very sorry that we can not hear his voice tonight.

### EXERCISES IN THE MUSEUM

MARTIN H. GLYNN: Doctor Clarke has told you that you came upstairs for inspiration, and then he added that I could tell you all about Joseph Henry. The first intimation that I had that I was to make a speech on Joseph Henry was when Doctor Clarke asked me to substitute for Professor Pupin who was to deliver this lecture tonight. I can tell you in a few moments what I know about Henry; and my main present interest in Henry is to erect a statue to him in this city.

This model of Joseph Henry was one of the ornaments that decorated one of the halls at the St Louis Exposition in celebration of the Purchase of the Louisiana tract made by the United States while Thomas Jefferson was President. The Congress that made the appropriation for that celebration was the 56th Congress in which I had the pleasure of representing this district. It gave me great pleasure at that time to vote for that celebration for this reason: the man who bought the Louisiana tract from Napoleon for the United States came from this district. His name was Robert Livingston. He was Ambassador to France at the time the purchase was made and in addition to purchasing that he was the man who furnished the money for Robert Fulton that made the steamboat possible.

In building the fair it was suggested that we ought to have an avenue or a street of fame in which could be put citizens of America who had done big things in the United States. In fulfilment of that plan and in the selection of the figures to decorate that avenue someone suggested that there should be a representative from the part of the country where lived Robert Livingston.

We searched in the realms of literature, in the realms of science and in the realms of art to find some man from this district who was best entitled to occupy the place in that lane of fame as the representative of New York, and of all the men that New York had produced, all its generals, all its poets, all its orators and its scientists, in all the category of distinguished educational men, we in conference with the national commission and a special delegation selected the name of Joseph Henry for a statue in that lane of fame.

In the search for one to give us a statue in keeping with Henry's great work and his world fame, after a competition and a strict judge of experts, the honor fell to Mr Flanagan, who at that time or shortly before had been a student of St Gaudens. He was a young man at the time; in fact, the youngest man represented in that great exhibition of art. Every other man who had a statue in that lane had already won his spurs in the halls of fame as an artist, and at the time some

people thought that probably this work should be done by an older man who had already acquired a reputation, but when Flanagan submitted this model the Art Commission, headed by Ives, probably the best expert at that time alive, pronounced this statue of Henry the most artistic, the most finished and the most symbolic in purpose of any submitted in the whole contest. It was selected, and as you see it now it rested at the Louisiana Purchase Exposition, with the exception that in those days it was white. Now in its bronze it is finer than when it was at St Louis.

You know, my friends, while Homer was alive, he begged his bread in many cities, and when he was dead seven cities claimed the honor of his birth; so when we came to close the fair in St Louis I suggested to the local commission that Albany would like to have that statue. St Louis thought it would like to have it too, but the power of the National Commission was far-reaching.

We have tried before this to erect this statue to Henry in bronze. Three times we thought we had succeeded but always something slipped. The present movement now is pretty well under way and promises to be successful. It owes a large measure of substantial encouragement to the enthusiasm of Professor Pupin. A few months ago we had a very interesting dinner here in Albany, brought together by the activity of Doctor Finley and Regent Alexander, and at this dinner Professor Pupin and Doctor Carty were guests. Enthusiasm bubbled freely over this project and the famous Columbia professor in one of his extraordinary and enthusiastic speeches said to us assembled here, after the dinner, right in front of this statue where we are standing, "I will raise half if you will raise the other half."

That is the history of the statue thus far. There is no reason in the world but that a statue ought to be erected in Albany. Here Henry was born; here he did his work, and to this city he brought the fame of his great discoveries. The National Government has recognized Henry's greatness. The next time

you go to Washington, go over to the Smithsonian Institution and there in front of that fine old building under the branches of the spreading elms you will find the National Government has erected a statue to Henry, while Albany, the city of his birth, the city that gave him to the world, has absolutely neglected his memory and his faith.

JOHN M. CLARKE: Dr E. W. Rice, jr, the president of the General Electric Company, is going to express his appreciation of Professor Henry's work.

## THE DEBT OF ELECTRICAL ENGINEERING TO THE WORK OF JOSEPH HENRY IN ALBANY

Dr E. W. RICE Jr

*President, General Electric Company*

It is a privilege to be able to say a few words tonight as a tribute to that great scientist and great man, Joseph Henry. Albany never had a more illustrious son, and it is therefore peculiarly fitting that we should in this city and in this place gather together to do honor to his memory. It has been well said that the mantle of the great American philosopher, Franklin, descended upon the shoulders of Henry.

While the fame and influence of great men are not to be limited by political boundaries, we may be permitted to take pride and pleasure in the fact that Henry was born in America and here in the city of Albany. It must also add to the interest of this occasion to recall that here in this city and close to this meeting place, Henry started on his great career in the acquisition of knowledge and its diffusion for the benefit, not only of his own generation, but of ourselves and future generations to the end of time.

Other speakers have this evening told you something of the effect of Henry's scientific investigations upon the great field of the transmission of human intelligence by means of electricity. I have been asked to say something about the influence of his work upon the field of what is frequently termed heavy electrical

engineering as comprehended in the generation, transmission and utilization of electrical energy. I may say at once, without fear of successful contradiction, that the entire electrical industry is not only founded upon, but is a direct outgrowth of the work of Henry. It is true that many other great men have made contributions and that our industry was founded upon the work of all these intellectual giants — Franklin, Oersted, Ampere, Ohm, Volta, Galvani, Helmholtz, Davy, the immortal Faraday, Maxwell and Kelvin — to mention but a few of those who have passed away. Of all these stars of the first magnitude two, however, shine forth with most dazzling brilliancy — Faraday and Henry. It is a remarkable coincidence, which, however, has often been noticed in the development of scientific work, that these two men, one living in England, and the other here in America, should at practically the same time have independently made a series of discoveries with regard to electricity upon which are founded our modern industry — I refer to the discovery of electromagnetic induction. Professor J. A. Fleming, of London, writing in 1892, states that "Henry's claim to be an independent discoverer of the fundamental fact of electromagnetic induction is not now disputed. In the July number of Silliman's American Journal of Science, for 1832, Joseph Henry, then a young teacher in the Albany Academy, gave an account of the manner in which he had independently, and before receiving an account of Faraday's work performed in the previous autumn, elicited from his own great electromagnet an induced current by wrapping around the soft iron armature certain coils of insulated wire. This simple experiment disclosed for the first time in history a method of obtaining from magnetism a current of electricity." Every electric generator which converts mechanical energy — of steam or of falling water — into electricity utilizes this principle. Every electrical transformer that takes the low pressure current, which is capable of traveling only a few miles without great loss, and transforms it into a current of high pressure capable of traveling hundreds of miles with little loss, utilizes this principle. It is found in every electric motor, from the small fan motor, which

keeps us cool in the summer, to motors which run our trolley cars or pull our great trains over the mountains. Henry not only made this great discovery independently of Faraday, but he also anticipated his illustrious rival by the discovery of the "self-induction" of an electrical conductor, and gave the name to the phenomenon by which it has since been known.

It is a great satisfaction to find that these two great men not only had no dispute as to their contributions to science, but such records as have been left clearly show that they held each other in the highest esteem and had nothing but mutual regard and kindly feeling one toward the other. In fact, Henry loved to dwell on the happy hours that he spent in Faraday's society upon the occasion of his visit to London in 1837.

Henry made a long series of brilliant discoveries with his so-called flat spirals which elucidated the laws upon which, as I have stated, the electrical transformer of today is constructed. He even demonstrated that a current of high potential could be produced by induction from a current of low potential by a suitable arrangement of the coils. To use his own language, he established the fact that an intensity current can induce one of quantity and that a quantity current can induce one of intensity.

Before making these fundamental discoveries in magneto-electric induction Henry had, while a teacher here in Albany, made a series of investigations and discoveries on the electromagnet which converted it from a toy to a useful device. Every electrical dynamo or motor uses the electromagnet in practically the form in which it was left us by Henry in 1829. All our dynamos and motors depend upon Henry's electromagnet for their operation. In connection with the construction of his electromagnet Henry also made a fundamental improvement of wrapping the bare copper wire with cotton or silk insulation so as to permit the wire to be wound into a close and compact coil, many layers deep — a form of construction which is essential and has been maintained to the present day.

I also find that Henry was the first to adopt the spool for the winding of magnets. These two notable inventions were the

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forerunners of our modern factory procedure and are in constant use in electrical machinery which we build and sell today.

In laying the foundation for the electric telegraph, Henry invented the so-called "relay" by which a relatively feeble current operated an electromagnet which in turn controlled the local circuit of a more powerful magnet. While this invention is extensively used in telegraphy, it is also generally used in a multitude of ways in heavy electrical engineering; for instance, in the operation of switches and for signals at a distance. It is found in the trolley car, the electric elevator, and generally the entire field of electrical control, known as distant control, has been built upon the relay magnet of Henry.

It is well known to those of you who have any acquaintance with the electrical industry that the names of eminent discoverers have been given to the so-called electrical units; for example, the name of Volta, who invented the Volta Pile, the first electric battery, is to be found in "volt," the unit of electrical pressure; the name "ampere" has been given to the unit of rate of electric flow, after Ampere who made numerous discoveries in electricity and magnetism; the name of "ohm," to the unit of electric resistance, after Ohm who explained the relation between current, electric pressure and resistance; and the name of "farad" to another electrical unit, in honor of the great Faraday. So, it is quite fitting that we find the name of "henry" given to the unit of electric inductive effect, in honor of our Joseph Henry, and it is pleasant to remember that the name of henry was first given to this unit at the International Electrical Congress held in Chicago in 1893, at which time the action taken was formally proposed by Mascart, an eminent French scientist, and unanimously adopted by the delegates representing not only this but all other important foreign countries.

The character and quality of a nation's civilization may be judged by the things which it prizes and the men whom it delights to honor. Judged by this standard, the American people and men of science are to be congratulated upon the selection of the man to whom we are tonight paying our grateful tribute.

At this time when throughout the world the terrors of war are monopolizing our thought it is well for us to remember that peace has its victories as well as war, and emphasize our appreciation of the character and work of one of the great leaders in the works of peace.

I have listened with much interest to the suggestion of a statue to Henry. I am glad to second this proposal. I am sure that we would all regard it as a privilege to assist in the practical realization of any plan to do honor to the memory of such a man. You may therefore count upon our hearty support.

I would, however, like to seize this opportunity to make a suggestion, as an admirer of Henry, that I have had in mind for a long time. The suggestion is not in competition with the other, but supplementary thereto. I would like to see here in Albany, or in its vicinity, an institution for original scientific research established to the memory of Joseph Henry.

We are now fairly well aroused in this country to the sad but vital necessity of military and naval preparedness and wise men are urging better industrial preparedness to meet the conditions of the near future. It can be demonstrated that no form of investment in preparedness will yield a handsomer return than investment in scientific research, and the dividends are not limited to material things but include those that are intellectual and spiritual.

I think such an institution, supported either by public or private funds, and administered in accordance with the ideals of Henry, would constitute a most fitting monument to his memory. I am not unmindful of the fact that we have in the Smithsonian Institution an organization to which Henry devoted the most of his life, and which has been so influenced and moulded by his spirit and work that it may be considered as one of his chief contributions to mankind; one for which he made many sacrifices and whose interests he guided with loving care until the day of his death. I think, however, that there is room for a smaller and less ambitious but none the less useful institution, such as I have suggested, and that the foundation of such an institution bearing

Henry's name would be most enthusiastically welcomed and supported by all scientific men. Some future Franklin or Henry, Edison or Bell may here be given an opportunity to pursue his investigations, wresting from nature new facts and knowledge for the benefit of humanity. Such an institution would perpetuate Henry's memory and perhaps serve to be the means of opening the door of opportunity to other kindred spirits. I can not help believing that such a monument would be one such as Henry himself would desire.









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